

Manufacturers Record Exponent of America



\$6.50 per Year.
Single Copy, 20 Cents.

Baltimore, Md.

AUGUST 16, 1928

Prohibition.

Every man and woman in America, whether for or against Prohibition, is reading about the subject. It has been forced into the Presidential campaign and will be a dominant issue. Opponents of Prohibition are claiming that the Eighteenth Amendment has resulted in increased drinking, especially among the young. They are saying, and saying it in every possible way through the "wet" papers of the land and by word of mouth, that Prohibition has proved a great curse to the country.

On the other hand, such men as the late Judge Gary, of the Steel Corporation, Henry Ford, probably the second largest employer of labor in America, George M. Verity, one of the great iron and steel leaders of the country, and thousands of other leading business men have regarded the Eighteenth Amendment as the greatest advance step made for the betterment of humanity in the world's history. The enemies of Prohibition charged Judge Gary with favoring that measure for his workmen, but not for himself. In reply to this charge, Judge Gary wrote the Manufacturers Record, and we were authorized by him at the time to quote him as saying that "Judge Gary does not partake of intoxicating drinks of any kind and that there are no intoxicating drinks in his house placed there since the Eighteenth Amendment was adopted."

A great many people are being misled on the subject of Prohibition. They are accepting the statement that Prohibition has increased drinking instead of decreasing it. Beginning with next week's issue, this paper will carry a series of articles by the editor giving some facts in regard to drinking among the young people in colleges and elsewhere, not only long prior to Prohibition but even long prior to the Civil War. Whatever one may think of the Prohibition question as an economic, as well as a moral issue, some of the facts presented in these articles will prove of interest to every thinking man and woman and to everyone who wants to know the real truth in regard to this situation.

The Manufacturers Record has seen so many evils of the liquor traffic, in private life and in political affairs, that it has always refused to accept advertisements of whiskey, beer or wine.

The series of articles beginning next week will throw some light on the situation to the younger generation and will bring to the older people of the land remembrances of wild drinking long before the Eighteenth Amendment was adopted.

We believe that thinking men, whether opposed to Prohibition or not, will read these articles with an open mind, for we feel that even opponents of Prohibition, except the liquor interests, are willing to see the other side of the case.

Dump your Ashes!

Estimate what you might have saved

A boiler plant with modern coal burning equipment and antiquated ash handling apparatus is merely putting money in one pocket and taking it out of the other. If your ash handling apparatus is expensive in manpower, unreliable and high in maintenance cost, you are losing 50 to 90 cents on every ton of ashes.

Inquire how much coal you burned last year and figure that with a Hydrojet Ash Removal System you might have saved \$50.00 to \$100.00 on every thousand tons. Then take into consideration that the saving would probably pay the cost of the Hydrojet in two or three years.

In various industries, the Hydrojet daily serves scores of power plants ranging in size from 600 to 38,000 boiler horsepower. You can probably see the Hydrojet in one of the industries in your vicinity.

The **ALLEN-SHERMAN-HOFF Co.**
223 SOUTH 15th STREET - PHILADELPHIA

HYDROJET
Nothing Moves but the Ashes

Table of Contents

Baltimore, Md., August 16, 1928

Prohibition	Cover Page
-------------------	------------

EDITORIALS

Under No Theory Can Federal Reserve System Justify Money Rates Which Are Endangering the Whole Nation.....	55
A Romance Wrought by Chemistry.....	57
Hoover's Acceptance Address Sets a High Standard.....	58
Mineral Resources of the South.....	59
Irrigation Activities in Pacific Southwest Pointed Out by New York Lawyer As Unwise	59
An Election Question for Legal Authorities.....	59
The Brilliant Work of the Coast Guard Service.....	60
Bad Advice As to Bombs From a University Professor.....	60
Some Men Who Did Not Have a Vision.....	61
Create Home Employment for Southern Men.....	61
Why Two Strong Political Parties Are Needed in Every State.....	62

NEWS ARTICLES

Sectionalism Should Disappear Before a Broad Spirit of Nationalism.....	63
Cottonseed Oil Industry Seeks Trade Practice Code.....	64
Open Forum Discussions of National Economic and Political Affairs at the University of Virginia.....	65
Bonds Offered to Finance Erection Huge Paper Mill and Bag Plant at Tuscaloosa.....	67
Plans for \$1,250,000 Memphis Bank Building.....	67
Silica Gel Developing Into One of Chemistry's Great Contributions to Industry —By Richard Woods Edmonds	68
Commercial Cotton Crop for 1927-1928..... By Col. Henry G. Hester	76
Probable 14,291,000 Bale Cotton Crop.....	79
Louisiana Sugar Staging a Remarkable Development..... By Thomas Ewing Dabney	80
New Agricultural Era for Western North Carolina..... By Leonora W. Wood	81
Growers Seek 50 Per Cent Increase in Tariff on Peanuts.....	81

DEPARTMENTS

Letters From Our Readers.....	83	New and Improved Equipment.....	89
Iron, Steel and Metal Market.....	85	Construction	91
Good Roads and Streets.....	87	Want Section.....	105
Textile	88	Financial News.....	110

Manufacturers Record

RICHARD H. EDMONDS, *Editor*

PUBLISHED EVERY THURSDAY BY THE

MANUFACTURERS RECORD PUBLISHING CO.

Office: Manufacturers Record Building, corner Commerce and Water Streets, Baltimore, Maryland
Printing Plant, 8th Floor, Candler Building, Market Place and Lombard Street, Baltimore, Maryland

RICHARD H. EDMONDS, President; FRANK GOULD, First Vice-President; VICTOR H. POWER, Second Vice-President;
I. S. FIELD, Secretary; J. ROBERT GOULD, Treasurer

BRANCH OFFICES:

CHICAGO, 11 South La Salle Street

NEW YORK, 901 Singer Building

CINCINNATI, 333 Dixie Terminal Building

SUBSCRIPTION RATES:

\$6.50 a year (in advance); six months, \$3.50; three months, \$2 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada add postage \$2 a year. For other foreign countries add postage \$5.50 a year. Back numbers, if available and not over one month old, 20 cents each. From one month to six months old, 50 cents each; over six months old, \$1 each. In ordering change of address, give old as well as new address.

MEMBER ASSOCIATED BUSINESS PAPERS, INC., AND AUDIT BUREAU OF CIRCULATIONS

TWO POINTS TO DRIVE HOME
Only PRODUCTION Registers
on a Counter

Only PRODUCTION Registers
with You.
Write for Counter Booklets

Veeder-ROOT INCORPORATED
HARTFORD, CONN.

YELLOW STRAND WIRE ROPE

Expertly made
of imported wire
drawn from the finest
steel in the world. Strong,
elastic, durable. Get Catalog 85.

BRODERICK & BASCOM
ROPE COMPANY

New York City ST. LOUIS Seattle

TRADE "LEADITE" MARK
Registered U. S. Patent Office

For Jointing Cast-Iron Water Mains
Saves at Least 75%

Leadite Tested and Used for Over 30 Years

Leadite Joints Improve with Age

The Leadite Co., Land Title Building, Philadelphia, Pa.
See our full page ad second issue each month

NO CAULKING

CRANES BUCKETS SHOVELS

ORTON CRANE & SHOVEL CO. 608 S. Dearborn St.
Chicago - Illinois

Snead Architectural Iron Works
LOUISVILLE, KY.

**STRUCTURAL STEEL
ORNAMENTAL IRON**

Immediate Shipment of all
STANDARD AND BETHLEHEM SHAPES
EITHER PLAIN OR FABRICATED

You Can Depend On

"HERCULES" RED-STRANDE REG. U. S. PAT. OFF. WIRE ROPE

because every wire that goes
into it is first rigidly tested by
us to make sure that it has every
quality that hard work requires.

Made Only By

A. Leschen & Sons Rope Co.
5909 Kennerly Ave.
ST. LOUIS

New York Denver Chicago
San Francisco

Established 1857

Made Of Acid-Steel Wire

ASHLAND FIRE BRICK

Don't blame your men when a furnace is hung up. The trouble may lie in the fire brick you are using.

ASHLAND FIRE BRICK CO.
Incorporated 1886
ASHLAND KENTUCKY

INDUSTRIAL LUMBER COMPANY, INC.
MANUFACTURERS OF
CALCASIEU LONG LEAF YELLOW PINE
"THE SUPREME STRUCTURAL WOOD OF THE WORLD"
ELIZABETH LOUISIANA

Manufacturers Record

EXONENT OF AMERICA

Devoted to the Upbuilding of the Nation Through the Development
of the South and Southwest as the Nation's Greatest Material Asset

Trade-Name Registered in the U. S. Patent Office

Vol. XCIV No. 7 }
Weekly.

BALTIMORE, AUGUST 16, 1928.

{ Single Copies, 20 Cents.
\$6.50 a Year.

Under No Theory Can Federal Reserve System Justify Money Rates Which Are Endangering the Whole Nation.

ARBITRARY maintenance by the Federal Reserve System of a credit stringency has gone far enough. It has become a real menace not only to this nation, but also to the whole world.

This country will not endure a second deflation. It will not acquiesce again in the wiping out of billions in value by the edict of a few men. Business will not permit itself to be mulcted to the extent of millions in excess interest rates. Madness or cowardice, or both, seem to hold sway in Washington, where the Federal Reserve Board, having already gone far to paralyze initiative and resourcefulness in industry through a succession of rate increases, is currently reported to be giving consideration to proposals that it sanction still heavier advances in the cost of money.

Something like \$500,000,000 in gold has left the country. We have more than \$4,000,000,000 left. We have as much as all the other nations of the globe put together. We have such a surplus of gold, in fact, that \$1,000,000,000 of it is supposedly sterilized and deprived of the ability to perform its proper function.

Never before has the credit of any nation had such a base. Never has there been a time when a deflation policy has had so little to justify it. There is no more reason, in sound finance, for the present cost of money than there is for a doubling of the freight rates.

Under what theory of decency the Federal Reserve authorities can insist on a restatement of the basic economic factor in commerce, arbitrarily enriching some and impoverishing many more, we do not know.

If it be granted that the banking authority is sacrosanct and justified not only in reaching all its decisions in private, but also even in refusing, after these decisions have been reached, ever frankly and sincerely to advise the public what its policies are, still it may be assumed that honor is as binding upon these people as upon any other decent folk. Not even a banking authority can be justified in deceiving a whole nation. Gentlemen who hold office in the Federal Reserve System, and bankers who control such vast sums of private money that the public has a right to look to them for leader-

ship, have repeatedly averred, and given the country to understand, not only that an export of \$500,000,000 in gold would not unfavorably affect our credit structure, but also that twice the amount could be sent out of the country without doing any harm. It is hard to believe that those who made these statements sincerely believed them. Nevertheless, by holding this promise up to the public, they at least dedicated themselves, in all honor and justice, to see to it that a minimum of harm should result from such exportations.

And what are the facts? One of the greatest of these private bankers said last October, in Chicago, that the exports of gold would do no harm, because the effect thereof would be neutralized by the Federal Reserve banks purchasing Government securities. But what the Federal Reserve banks did do was to sell such securities. Instead of neutralizing a factor that tended to harden money, they took the one measure that was certain to add to that hardness. Last summer, in putting into effect a decently low rate, it was explained, and honestly explained, that the purpose of the reduction was not entirely to save a situation in Europe that had become especially perilous, but primarily to facilitate the financing of the crop movement, on terms that would not be a hardship to the farmer. Indeed, with agriculture everywhere crying for relief, it was pointed out that a policy of low money rates during crop-moving time would give very substantial relief and would be a proper national policy. This whole theory was carefully considered in the MANUFACTURERS RECORD at the time. We applauded it as a statesmanlike development in the right direction and we stated then that, should the Federal Reserve authorities thereafter attempt to veto their own policy and restore the old method of taking out of the crops all that the traffic would bear, we, at least, would tell the country what they were doing and demand an explanation.

Now, what happens? Just as the demand for funds for moving the crops develops, the Federal Reserve banks, with the sanction of the Federal Reserve Board, exercise every power they possess not to lower the cost of money, but arbitrarily to raise it. And why? Surely, some great emergency of vital exigency alone would justify such a policy! Has the credit base been so contracted as to make imperative a wide contraction of credit itself? The country was told in 1920 that the gold reserve ratio was close to the legal limit of 40 per cent and that this necessitated deflation. But the reserve

ratio is nowhere near 40 per cent now; it is 69.5 per cent. Search through all the formulae of sound finance and nowhere will be found a definition that justifies this remarkable money squeeze. No; because there is only one answer given and that is that brokers' loans are high. So is the Woolworth Building.

Can men in authority never realize that this nation has become the financial center of the universe?—that we are no longer a narrow agricultural community, but a great nation, the richest the world has ever seen, engaged in financial operations that would have dwarfed anything the mind of man could have imagined even 20 years ago. Are we going to try to finance the world and expect our resources to stay what they were when we were financing only ourselves? Are we going to try to drive away from our own shores the profit that comes to us from world financing? Can our authorities never understand that a financial hegemony involves a definite responsibility to deal fairly with the foreigners who avail themselves of our facilities, as well as fairly with our own people? Federal Reserve credit is something to be employed and as has been said, "America will simply have to accustom herself to more copious use of that credit."

The Wall Street Journal declares that the country is now in the grip of an unsound money policy. "For the Federal Reserve to impose high money rates upon business in general because of the assumed excesses of one class of borrower is like the school teacher who keeps the whole class in because one or two pupils have misbehaved." That is a mild castigation. To penalize a whole nation in the hope of being able to set at an arbitrary figure the volume of credit used in the country's leading market is so fatuous and terrible a thing that it would not be believed possible were not the living evidence of it daily before men's eyes.

We say that definite promises were made to the public and have not been carried out. Speculation was actually encouraged. The President of the United States formally declared, some seven months ago, that the volume of brokers' loans did not indicate any unsoundness in the financial situation. Governor Young of the Federal Reserve Board, a few weeks later, speaking before a Congressional committee, in principle reiterated that observation. Forward-looking men had a feeling that Mr. Coolidge, even though he seemed to be interfering in something that precedent would have kept him out of, was speaking by the card. It was only a generation ago that his opponents taunted Speaker Reed and charged profligacy of expenditure because the appropriation bills provided for outlay of approximately \$1,000,000,000. And Speaker Reed, far from apologizing, silenced them with the simple statement of a great truth—"Well," he answered, "this is a billion-dollar country."

When Mr. Mellon took charge of the Treasury, in 1921, high rates were in vogue and there was plenty of argument brought forward in defense of them. Nevertheless, four months later, with Government securities far below par and confidence everywhere impaired, a general reduction of rates was ordered. The response was almost immediate. Liberty bonds rushed back to par with an amazing rapidity. Within a comparatively short time, the gold which had left our shores began to return. Business everywhere received an impetus and, by 1924-25, so energizing was the effect of sane financial policy that the country entered into a period of unparalleled prosperity and wellbeing.

Confronted with violent protests by some newspapers against the easy money policy being pursued, Governor Strong, in April, 1926, presented before the House Committee on Banking and Currency a written memorandum in defense of that policy. "It is deflation that the Chronicle proposes," said Governor Strong. "The probable results may be described in the words of the Chronicle, 'Business concerns by

the thousands would have gone to the wall if pressure by the banks to force payment of indebtedness due them had been carried too far.'" Speaking of the large increase in security prices, Governor Strong pointed out that, while such increases may have been facilitated in part by moderately easy money, they appear also in part to have been "justified by increases in business profits and in the value of the properties which the securities represent."

But, Governor Strong also said: "For four and a half years the volume of trade has been maintained at a remarkably high level and this has been facilitated by adequate supplies of credit. The Reserve System exerted an influence toward easier money at times when trade was less active, in 1922 and 1924, and exerted an influence toward firmer money in 1923 and 1925, when trade activity showed some tendencies toward over-expansion." What was the condition of trade in this country last winter, and did it need stimulation or did it not? Under what theory is it permissible for the Federal Reserve System to have exerted an influence toward easier money when trade was less active in 1922 and 1924 and to have exerted exactly the opposite influence when trade was less active in 1927-28?

Again, we take up the question of unfulfilled promises. We think it will not be denied that Federal Reserve policy, for some years past, has been designed to facilitate the return of Europe to gold. Extraordinary credits were provided to justify the British return to gold. Only recently, a tremendous effort was made by America to bring France into the fold of gold countries. Never during all that period was any other theory upheld than that gold should be so used as to prevent any material enhancement of its value. The American experts who testified before the British Commission on the proposed return of India to gold were emphatic in their declarations that a prime consideration in world financial policy must be the maintenance of commodity price levels. If any banking system has ever been dedicated to anything, the Federal Reserve System has been dedicated absolutely to this maintenance of prices. And yet, it is now forcing a policy upon the country that can have no other effect, if persisted in, than to reduce prices everywhere. And if you reduce prices, you must reduce wages. Do either or both things, and no tariff can be written sufficiently high to maintain American standards of which we are so proud.

In its annual report, the Bank of Italy points out that worry over the social effects of inflation has given place to other worries arising from the possibility of a lack of gold to meet the increased and increasing needs of the people; "and it should not be overlooked that in the history of human progress the most active and productive periods were those in which the tendency of prices was to rise, in connection with a larger supply of the precious metals which were used for minting purposes." Falling prices and prosperity never go together. Falling prices are at utter variance with the whole American concept, as indicated by our protective tariff policy.

The world, indeed, has relied on an intelligent credit policy in the United States. It has accepted the promises made that rates here would be administered with some regard for our international obligations. If it were true, therefore, that this country itself were willing to be penalized extravagantly in order to discipline the speculative markets, still such a course would not be justified in view of our moral obligation to the rest of the world.

The situation would be menacing enough were the authorities themselves in unanimous agreement as to the wisdom of the course pursued. The country then might think that, with the experts all agreed, there must be good reason for their conclusions. But there is more than a suspicion that there is no such unanimity. It has been publicly admitted that an

announcement of a Chicago raise was held up because there was not even a quorum of the Federal Reserve Board present in Washington to sanction it. It is hardly a secret, too, that some of the members of the board are fidgety and wobbly and uncertain, breathing hot and cold. One of them, who wept bitter tears because he had acquiesced in the extreme deflation of 1920, is just about as uncertain in his judgments now as he was then.

It would not be far from the truth to say that one or two of the Federal Reserve banks have raised rates against their own better judgment, because of pressure. There is a suspicion that the country is paying for a war between Chicago and New York, and it is whispered that even in Chicago there is not complete agreement with those influences there which want still higher and higher rates. We hardly think it is possible, just now, for Chicago to wrest financial leadership away from New York. It may be, indeed, that those interests in Chicago which seem to have set their heart on such an accomplishment have themselves been loaning in New York the money which they succeeded in attracting first to Chicago. It is not yet completely established that New York has become the world financial capital in place of London and, surely, if we are going to have internal competition in our own country, there is grave danger that this financial supremacy will be lost to us altogether. There can be no objection to the building up of a great security market in Chicago, of another in San Francisco. But the business interests of the country will surely raise grave objections if the cost thereof is to be taken from them through competitive rate increases.

We say, in all solemnity, that this country cannot stand a stringent money policy. Already hundreds of millions in security issues which otherwise would have been floated have been held back, and construction work of great magnitude which otherwise would have been under way has been delayed. Initiative finds itself handicapped and resourcefulness receives no encouragement. The noose is about the neck of the country and the Federal Reserve System has put it there. So, when it is whispered about that Chicago wants to raise the rate again, when business men all over the country are being told that the rediscount rate may go up to 6 per cent, with no other explanation given than that the object is to reduce brokers' loans, sensible men rub their eyes to see if they are dreaming. It is incomprehensible to them that such a ponderous stupidity could actually exist.

We do not believe for one minute that Mr. Hoover, with his great breadth of vision, would countenance a thing of this sort. True, he is not in authority, but we hope that he will take occasion to tell the country something of his views of what a proper money policy is. He has achieved a great reputation by teaching business how to eliminate waste. He has done more than any other man before him ever did to achieve stability in this and that line of business. It must make his blood run cold to see a financial policy that changes from easiness to hardness in the course of a few short months. There is no stability in that sort of thing.

The Federal Reserve banks have been indefinitely rechartered. Unless there is soon evidence of sounder judgment and greater administrative skill in the Federal Reserve System, we have no hesitancy in saying that Congress will intervene; because, it is not within the category of possibilities that the country should be willing to go through a long period of chastisement by the Federal Reserve Board. Indeed, it is the Federal Reserve Board itself that needs discipline; because, if an untenable position does exist, it was the board that permitted and encouraged it.

Perhaps, the board has no confidence in the country because the board has no confidence in itself.

The Commercial and Financial Chronicle, the foremost

financial paper in America, in a lengthy review of this situation said:

"For ourselves, we cannot refrain from saying it ill becomes the Federal Reserve authorities to criticize the banks for doing what the Federal Reserve policy directly impelled them to do. Who is responsible for the speculative folly, the ill effects of which are now visible on every side? Not the banks, no matter how their course is to be deprecated, but the Federal Reserve, every move of which during the last twelve months has been fraught with latent mischief. Did not the Federal Reserve banks last summer reduce their rates of rediscount to 3½ per cent, even compelling one obstreperous Reserve bank in the West to make the reduction against its emphatic objection and protest? At that time, the member banks were not borrowing, as they are today, over \$1,000,000,000 at the Reserve banks, but barely half that amount, and could not be induced to increase their borrowings even at the low rate of 3½ per cent, since they had no use for the money. Did not the Reserve banks then undertake to thrust out Reserve credit on unwilling banks by purchasing several hundred million dollars of Government bonds, thereby flooding the market with Reserve funds to a corresponding amount?

"Did not all this in the end start a rampant speculation which it has been impossible to control since, either by the Reserve banks or anyone else. Have not brokers' loans been mounting with extraordinary rapidity as evidence of the speculation. Has not every move that the Federal Reserve banks have made to check and control the speculation which its own unfortunate policy had started, been ineffective?

"In the endeavor to prevent the further use of Reserve credit and of ordinary bank credit for speculative purposes have not the Reserve banks made repeated advances in their rediscount rates during the last six months, first from 3½ per cent to 4 per cent, then from 4 per cent to 4½ per cent, and now from 4½ per cent to 5 per cent, without its having the slightest effect in checking the employment of credit in speculative channels. Did not the Reserve banks at the same time sell the hundreds of millions of dollars of United States Government securities which they had acquired the last half of 1927, when they were engaged in flooding the market, as we have already seen, with Reserve credit, the purpose now being to withdraw the funds so prodigally put afloat at that time? Did these sales of Government securities have any effect in checking the volume of Reserve credit in use? Did not the member banks take the very bonds which they then purchased from the Reserve institutions, back to these institutions and borrow upon them, keeping the same amount of Reserve credit outstanding as before and even increasing the total of the same? Was not the only effect of the sale the utter demoralization of the Government bond market? Has not the whole credit control policy of the Federal Reserve been an utter and complete failure? Could any other result indeed have been expected? Must not failure be the inevitable result in the future?"

A ROMANCE WROUGHT BY CHEMISTRY.

THE work of chemists has brought forth a new product which after several years of testing seems destined to completely revolutionize the transportation of fruits and meats, and at the same time to bring about mighty changes in many lines of industrial and business activity. The story of Silica Gel as told in this week's issue is a romance of chemistry. No man can afford to miss the opportunity of studying this discovery which seems destined to have worldwide effects upon many lines of industry and business generally. Silica Gel is not a new discovery. It has been undergoing every imaginable test for some years and now seems to have fully proven its remarkable properties and their revolutionizing possibilities.

Such a deep impression as to the possibilities of Silica Gel has been made upon European investors that leading financiers, reported to be the Rothschilds, have made heavy purchases of the stock of the European company owning Silica Gel. The Davison Chemical Company of Baltimore, which has fathered Silica Gel and brought it to the present state of development, has working arrangements and some mutuality of stock with the great Rio Tinto mines of Spain which are owned by some of the foremost financiers of Europe.

August 16, 1928

Hoover's Acceptance Address Sets a High Standard.

BY his address of acceptance, Herbert Hoover has tremendously lifted himself in the hearts and minds of thoughtful people of this country, millions of whom had been eagerly waiting to hear what he would say in accepting the presidential nomination. From beginning to end his address strikes a high note. It is sane, sound and conservative. It deals with nearly all of the great questions confronting our country, and in every respect will rank as one of the greatest, if not the greatest acceptance speech which any presidential candidate has ever delivered. It is like Mr. Hoover—calm, broad-visioned. No enemy even of Mr. Hoover can read his address without having a higher opinion of his ability.

Throughout the entire address emphasis is laid upon the moral and spiritual side of American life, placing them far above merely the material side of American progress. "Economic advancement," said Mr. Hoover, "is not an end in itself. Successful democracy rests wholly upon the moral and spiritual quality of its people. Our growth in spiritual achievements must keep pace with our growth in physical accomplishments. Material prosperity and moral progress must march together if we would make the United States that Commonwealth so grandly conceived by its founders.

"To me the test is the security, comfort and opportunity that has been brought to the average American family. During less than eight years our population has increased by 8 per cent. Yet our national income has increased by over thirty billions of dollars per year or more than 45 per cent. Our production—and therefore our consumption—of goods has increased by over 25 per cent. It is easily demonstrated that these increases have been widely spread among our whole people. Home ownership has grown. While during this period the number of families has increased by about 2,300,000 we have built more than 3,500,000 new and better homes. In this short time we have equipped nearly nine million more homes with electricity, and through it drudgery has been lifted from the lives of women. The barriers of time and distance have been swept away and life made freer and larger by the installation of six million more telephones, seven million radio sets, and the service of an additional 14 million automobiles. Our cities are growing magnificent with beautiful buildings, parks and playgrounds. Our countryside has been knit together with splendid roads.

"We have doubled the use of electrical power and with it we have taken sweat from the backs of men. The purchasing power of wages has steadily increased. The hours of labor have decreased. The 12-hour day has been abolished. Great progress has been made in stabilization of commerce and industry. The job of every man has thus been made more secure. Unemployment in the sense of distress is widely disappearing.

"Most of all, I like to remember what this progress has meant to America's children. The portal of their opportunity has been ever widening. While our population has grown but 8 per cent we have increased by 11 per cent the number of children in our grade schools, by 66 per cent the number in our high schools, and by 75 per cent the number in our institutions of higher learning.

"With all our spending we have doubled savings deposits in our banks and building and loan associations. We have nearly doubled our life insurance. Nor have our people been selfish. They have met with a full hand the most sacred obligation of man—charity. The gifts of America to churches,

to hospitals, and institutions for the care of the afflicted, and to relief from great disasters, have surpassed by hundreds of millions any totals for any similar period in all human record.

"One of the oldest and perhaps the noblest of human aspirations has been the abolition of poverty. By poverty I mean the grinding by under-nourishment, cold, and ignorance and fear of old age of those who have the will to work. We in America today are nearer to the final triumph over poverty than ever before in the history of any land. The poorhouse is vanishing from among us. We have not yet reached the goal but given a chance to go forward with the policies of the last eight years, and we shall soon with the help of God be in sight of the day when poverty will be banished from this nation. There is no guarantee against poverty equal to a job for every man. That is the primary purpose of the economic policies we advocate.

"I especially rejoice in the effect of our increased national efficiency upon the improvement of the American home. That is the sanctuary of our loftiest ideals, the source of the spiritual energy of our people. The bettered home surroundings, the expanded schools and playgrounds, and the enlarged leisure which have come with our economic progress have brought to the average family a fuller life, a wider outlook, a stirred imagination and a lift in aspirations."

The agricultural situation is broadly discussed by Mr. Hoover with full appreciation of the necessity on the part of the national government of working out some plan that will bring to the farmers of the country a prosperity equal to that of other interests. Especially important is his emphasis upon the fact that farming must continue to be an individualistic business of small units and independent ownership. This is wisely and directly contrary to the theory of many who have claimed that farming must ultimately be done by mass production by great corporations. If individual farm life could ever be destroyed by mass production of great farms American life would indeed be in danger. The hope of the country is in the maintenance on a profitable basis of farm life to which men of intelligence in farming can give themselves.

Pointing out the increased expenses that have laid a heavy burden upon agriculture following the terrific deflation which well-nigh wrecked the agricultural interests of the country, Mr. Hoover emphasizes the importance of developing our waterways to the utmost extent possible in order to lessen the cost of transportation. He scorns the thought of those who cannot reconcile themselves to the advancement by the Government of a few hundred millions for a workable program for agriculture out of the \$90,000,000,000 income which the American people have; but he wants this development of better farming prosperity worked out through a board composed of representative farmers to build up farmer owned and farmer controlled stabilization corporations.

Emphasizing the necessity of undertaking the larger visioned development of our water resources Mr. Hoover says that "every drop which runs to the sea without yielding its full economic service is a waste." And then he points out the development of our waters must be through a systematic co-ordination undertaken not by isolated projects, but by a "definite and positive interconnected system of transportation."

"These projects," said Mr. Hoover, "will require probably an expenditure of upwards of one billion dollars within the next four years. These will comprise the largest engineering construction ever undertaken by any government, but it is justified by the growth, need and wealth of our country."

"The completion of legislation providing adequate flood control of the Mississippi marks," said Mr. Hoover, "not alone

the undertaking of a great national task, but it constitutes a contribution to the development of the South and the encouragement of the economic growth of that section in which lies one of the great national opportunities of the future."

In the matter of Prohibition Mr. Hoover reiterates his former statement that he does not favor the repeal of the Eighteenth Amendment, but that he stands for the efficient enforcement of the laws enacted thereunder. "Our country," said Mr. Hoover, "has deliberately undertaken a great social and economic experiment, noble in motive and far-reaching in purpose. It must be worked out constructively." Thus Mr. Hoover places himself squarely on the Prohibition issue while Governor Smith and his chairman, Mr. "Damnable Affliction of Prohibition" Raskob, stand straight out against Prohibition.

He stresses the importance of a protective tariff for agriculture and for industry alike, in order to maintain the high rate of wages which mean better living conditions for the people of this country than can be found anywhere else in the world.

"The problems before us," said Mr. Hoover, "are more than economic. In a much greater degree they are moral and spiritual. I hold that there rests upon government many responsibilities which affect the moral and spiritual welfare of our people. The participation of women in politics means a keener realization of the importance of these questions."

Mr. Hoover reiterates his well-known position as against government doing the things which can be done to better advantage by private citizens. He said:

"Government should not engage in business in competition with its citizens. Such actions extinguish the enterprise and initiative which have been the glory of America and which have been the root of its pre-eminence among the nations of the earth. On the other hand, it is the duty of business to conduct itself so that government regulations or government competition is unnecessary."

Throughout the entire address there is sounded a high note, worthy of the careful thought of the people of this country who in the study of this address will gain a larger vision of Mr. Hoover and his views on the great questions of the day than they have heretofore had the opportunity of getting.

MINERAL RESOURCES OF THE SOUTH.

OF particular interest and importance to the South is an undertaking by the United States Geological Survey to ascertain the probable mineral content and value of Federal lands in the various States and "to furnish other geologic information of use to the public." Under the latter heading will be "the preparation of detailed geologic maps," and these, says the survey, are in great demand.

"In Texas," the Survey says, "progress is being made on the slow task of preparing a new geologic map of the State on a scale that will be adequate for the use particularly of the petroleum industry. Texas is an empire in itself, covering more than 265,000 square miles, and the preparation of a detailed geologic map is therefore a task of much magnitude." Maps have been completed for Oklahoma and Alabama, among other States, and are in course of preparation for Virginia, Arkansas and Florida. The Survey adds:

"The iron ores of the South are receiving more or less constant attention from the Survey. An agreement has been entered into with the Geological Survey of Alabama for a co-operative study of the ores of that State. A review is under way of the iron ore situation in Virginia and some of those in Tennessee are treated in reports about to be issued."

Such studies and disclosures of the varied and almost invaluable mineral resources of the South must inevitably contribute to the constructive development of that section and redound to the prosperity of the entire country and to scores of individual industries.

IRRIGATION ACTIVITIES IN PACIFIC SOUTHWEST POINTED OUT BY NEW YORK LAWYER AS UNWISE.

COTTON acreage increased about 45 per cent in the Pacific Southwest this year as compared with a gain of 11.4 per cent for the entire country, states The Week published by the Utilities Information Committee, Atlanta, Ga. Quoting a recent issue of the Los Angeles Times that approximately 750,000 acres are planted to irrigated cotton in the Pacific Southwest, with a probable harvest of 500,000 bales, The Week, even at the risk of being termed a propagandist, points out that:

"The Swing-Johnson Bill for the erection of Boulder Dam at a cost of many millions, if passed by Congress, would be to add further to production, which is the central cotton problem. It would tax the South, along with the rest of the country, to aggravate the South's chief ill."

The South and Southwest have millions of acres of available land for cotton growing requiring only the cost of cultivation to make them productive. It can supply world needs if only a living price is paid for the staple, and there is no necessity to go to the enormous public expense of creating irrigated lands to grow more cotton. The problem of agriculture is not lack of land but overproduction, and we have not yet reached efficiency in farming.

After the foregoing was written, the MANUFACTURERS RECORD received a letter from Guy M. Walker, prominent New York lawyer and business man, calling attention to recent news items regarding the completion of the \$5,500,000 San Carlos project which will irrigate 100,000 acres in the Florence Casa Grade Valley in Arizona, the Beardsley-Aqua Fria project and the \$3,000,000 Roosevelt irrigation district west of Phoenix, each comprising about 40,000 acres. Mr. Walker points out that this is a "fine example of the folly of Government financing irrigation projects—\$5,500,000 spent just to put water available to 100,000 acres. This is an investment of \$55 per acre to bring water to the land. After this it will cost at least \$5 an acre every year to keep up the water supply. What sense is there in such a development when there are millions of acres in Alabama, Mississippi and Louisiana that can be bought for \$10 per acre where nature pours from 65 to 70 inches of rain on it every year?" And Mr. Walker continues:

"The other project of \$3,000,000 to irrigate 40,000 acres is an investment of \$75 per acre just to make water available. On this there will be an annual water tax of not less than \$10 per acre. Why should any farmer or agriculturalist go to this land and obligate himself to pay such a tax just for water when he can go to several Southern states and buy thousands of acres, full title in fee simple, for less than the annual water tax on irrigated land? The sum that he would pay for one year's water tax out West will buy him the full title in perpetuity in the South. Every Southern Senator and Congressman should vote against every irrigation project that comes up. If there should turn up an irrigation project of real merit it can no doubt get financed locally, but the Government should stop."

AN ELECTION QUESTION FOR LEGAL AUTHORITIES.

THE MANUFACTURERS RECORD has received an inquiry as to whether men and women in Virginia, who have not paid their poll tax, will be allowed to vote in the Presidential election. The question raised is "has the State a legal right to freeze any voter out of a national election?" with the added statement, "of course, it can out of a State or local election, but can it do so in a national election?"

We submit the question to legal authorities for their consideration.

THE BRILLIANT WORK OF THE COAST GUARD SERVICE.

"The best citizens
"Of any land
"Obey the laws
"Of God and man."

These are the closing words of an address prepared by Captain Samuel Preston Edmonds, in command of the Coast Guard Service at Biloxi, Miss., having under him a large number of ships engaged in Coast Guard work, for the celebration of the completion of Mobile's \$10,000,000 dock and wharfage plan.

Captain Edmonds, reviewing some of the work of the Coast Guard service which he has seen in the Arctic regions and on the Atlantic and Gulf Coasts, from Maine to Galveston, closed his statements with the words we have quoted, adding that "as an oldtime sailor, I want to say as I have said before from the speakers' platform, that these 13 words can easily be remembered."

In giving some account of the remarkable work of the United States Coast Guard, Captain Edmonds stated that for 138 years the Coast Guard has been cooperating with the shipping and maritime interests and the 17 guns fired from the Coast Guard cutter Tallapoosa on the day of the celebration at Mobile were a salute not only to the Governor of Alabama, but were symbolical of the new era for the South in which the United States is helping in every possible way to give the Southern States the recognition and full benefits of the national government. "Another example," said he, "is the great work in the flood district of the Mississippi Valley where \$325,000,000 are to be expended for the safety of that area."

Captain Edmonds continued:

"As an officer in the United States Coast Guard with .45 years of government service behind me and only 40 years more of possible retired service ahead of me before reaching the hoped-for century mark, I want to speak in regard to the relations of the Coast Guard with the mercantile marine of our country.

"Every mariner in this assembly knows the Coast Guard and something of the scope of its duties. First of all is the saving of life and property. The daily papers give you some idea of the hazards and difficulties through which the Coast Guard cutters operate in the winter storms of the North and the summer hurricanes of the South in giving assistance to vessels and people in distress. In time of war we convoy your merchant fleets and take every risk even to the last great sacrifice. Everybody remembers the 'Tampa,' named after one of your beautiful Southern cities, ruthlessly sunk with all hands and without trace, by a submarine which she was fighting off from a soldier laden fleet under convoy in the worst area of the World War Zone.

"But there are deeds of heroism by Coast Guardsmen that are little known outside of official circles. The records are full of them. We have here today a high ranking Coast Guard officer from headquarters in Washington who won an enviable record with the foreign navies of the Allies for one outstanding act which I will briefly relate to you.

"When the British Admiralty found that the Hun submarines would sink all boats going to rescue of drowning passengers or crews of sinking torpedoed vessels, they issued an order to the effect that such doomed vessels, passengers and crews, must be left to their fate, to prevent adding other souls to the foul massacres.

"Shortly after this order was issued, the Coast Guard cutter 'Seneca,' lying at Gibraltar for stores and fuel, intercepted the radio call of distress, that the steamer 'Queen,' with thousands of soldiers, women and children on board, had been submarine and was sinking. The Hun submarines were lying in wait for new victims, but Captain William J. Wheeler, of the U. S. Coast Guard cutter forgot all negative orders, but with the spirit of the Coast Guard motto, 'Semper Paratus' (Always Ready), uppermost in his mind, ordered full speed into the maelstrom of that mortally wounded vessel against all orders of the British Admiralty, and firing at the submarines while rescuing the people from the water, he safely returned to Gibraltar with the precious

and thankful rescued people, who a few hours before had seen no hope.

"The same may be said of rescues of passenger vessels and cargo boats in peace times; the Coast Guardsmen are 'Semper Paratus.' The rescue work in the Mississippi flood afforded many such instances, made possible by our prompt arrival at the scene of the flood after the national relief work was inaugurated. I had the honor of leading the Biloxi Coast Guard unit to the flood zone as the first general move in that work. Our boats plunged into the overflowed areas and took the people from trees and house tops day and night. One particular feat was accomplished that was without precedent, and will be related briefly as illustrating the determination of the Coast Guardsmen in that work. Major John Gotwals, who was the nerve center of the relief operations, received word that people were drowning about Plancherville, La., following the great breaks in the levee about Bayou des Glaises. He radioed to me about it. In the face of these reports I told him that Coast Guard surfboats had been sent to the vicinity of the expected breaks and I doubted the reports that people were drowning there. He replied that river pilots assured him that no boats had ever or could ever go through the crevasses with the boiling waters of the raging Mississippi River rushing through.

"On arriving at the scene of the crevasse, I found, and so reported to Major Gotwals, that the surfboats had defied all restraint and had gone through with the rushing waters and had rescued the startled and sorely endangered inhabitants throughout that night. One boat was crushed, men were badly bruised, but the rescue was complete. Let me here pay tribute to all the other organizations that took such effective part in that flood relief work in which the Coast Guard formed a unit.

"As one of the older officers of the Coast Guard service, I want to say to this assembly of representative American citizens, that the younger generation of Coast Guardsmen are carrying on the torch and you ship owners, shippers and prospective passengers may rest assured that protection from your Coast Guard will continue with this same devotion to duty.

"Now there is just one more element of our work that I want to mention. I remember about four or five years ago, there was a great deal of discussion as to whether the Eighteenth Amendment to our great world exemplar Constitution could or would be enforced. It seemed that the absence of strong effective organization for enforcement caused a lack in direction or strength or incentive and the whole country seemed to feel that there was no means of effectually preventing the smuggling operations of that time. But I believe that you will agree with me that when the U. S. Coast Guard received the Presidential orders and fleets of patrol boats were sent out to stop the surprised and much disappointed smugglers, new heart was taken and a realization came that there is an organization that can and will efficiently operate against smuggling lawbreakers. Courage has now grown to the point where the law is recognized as enforceable to a fair degree. It is our duty to enforce the law as ordered by the powers that be and we try to do our duty at all times.

"Some of our citizens may still be in doubt about the Eighteenth Amendment, but, as an old time sailor, I want to say as I have said before on the speakers' platform in the presence of your Mayor Leon Schwartz and our Biloxi Mayor, John Kennedy, the following thirteen words which can be easily remembered if you will repeat them:

"The best citizens
"Of any land
"Obey the laws
"Of God and man."

BAD ADVICE AS TO BOMBS FROM A UNIVERSITY PROFESSOR.

PROF. JOHN H. LATANE, of the Johns Hopkins University, seems to have a great deal of the anarchistic spirit in his makeup, too much indeed for a prominent professor in a great university. In an address a few days ago denouncing Prohibition, he expressed the feeling that when he passed, in Washington, the office building of the Board of Temperance, Prohibition and Public Morals he felt like throwing a bomb at it. Does Hopkins encourage bombing activities of this kind even against organizations despised by its professors?

SOME MEN WHO DID NOT HAVE A VISION.

IN 1865 Whitelaw Reid, then correspondent and afterward owner and editor of the New York Tribune, wrote a letter to the Tribune from Florida giving a very doleful picture of what he had seen of the state which, as we remember the letter, involved the lengthy trip of 40 miles between Jacksonville and St. Augustine! He wrote that he did not think the entire State of Florida was worth the \$5,000,000 which the Federal Government had paid for it.

If it were possible for Mr. Reid to return to this earth and see what has been accomplished in that state, and the billions of values that have been created, he would realize that he did not have good vision nor the power of prophecy. His view in regard to Florida, however, is in keeping with the views held for many years by many people in regard to the South generally.

The Florida State Chamber of Commerce has recently called attention to the failure of a number of United States Army engineers as late as 1874, and even later, to forecast the future of that state. One of these engineers in 1874 in his report on river and harbor improvements in the St. Johns River and the port of Jacksonville, made an estimate that "six months work on the bar during the period of one year at an expense of \$10,000 is all that the commerce of this location will justify at present." He then requested an appropriation of \$10,000 for the fiscal year ending June 30, 1875.

In 1894 another United States Army engineer in charge of the river and harbor improvements at Miami paid a high tribute to the winter climate of the Bay Biscayne region, and indicated that in his opinion it would become one of our most popular winter resorts. At that time Miami had a population of 2500. Referring to the possibility of port development at that place he said:

"There is no certainty and no very strong probability that such a proportion of water-borne commerce would seek Miami as to justify an expenditure of anything like \$1,494,000, the estimated cost of harbor and channel improvements."

Although the engineer who made the report in 1874 thought an appropriation of \$10,000 for the following year sufficient for the St. Johns River and the port of Jacksonville, the Government since 1879—according to this report of the State Chamber of Commerce quoted in the Times-Union—has spent \$10,000,000 on the port of Jacksonville and the people of Duval county have spent \$305,000 of their own money; and during 1927 Jacksonville's water-borne commerce, which of course would include domestic and foreign, amounted to more than 4,600,000 tons valued at more than \$778,000,000. There is now a 30-foot channel from the docks to the sea.

The engineer who made the report on Miami's port possibilities was also somewhat lacking in vision, for a year or two ago according to the Chamber of Commerce the Federal Government appropriated \$2,000,000 for one project for Miami alone, and the water-borne commerce of that city in 1927 amounted to 1,335,157 tons valued at \$47,734,789.

Army engineers in 1879 made what they regarded as a liberal estimate in valuing Tampa's annual water-borne commerce at \$500,000. In 1927 it amounted to 3,586,923 tons valued at \$134,957,837.

These are typical illustrations of how often Army engineers and others have failed to visualize the potentialities of this country and comprehend its growth. Red-tapeism has frequently compelled these engineers to make their reports based entirely on the commerce in sight at the time of the report, taking no account of how the development of facilities inevitably develops trade and traffic. The builders of railroads in times past have had to put millions and billions into the construction of roads for which there was no immediate traffic available. They looked ahead. They saw that the creation

of railroad facilities would create business for the roads. That should be the policy of the Army engineers. Comprehending the limitless possibilities of this country, they should realize that in proportion as facilities for traffic are created traffic will be developed to justify the money properly expended in the creation of these facilities.

CREATE HOME EMPLOYMENT FOR SOUTHERN MEN.

FOR some time it has been the custom of great business organizations to provide scholarships at high educational institutions for students. The demand for technically trained men in some lines of industry is greater than the supply, and hence many business organizations have wisely co-operated in providing scholarships for work of this kind.

Years ago the MANUFACTURERS RECORD suggested a plan to the cotton manufacturers of the South for establishing scholarships of this kind, in order to increase the number of technically trained men in the South and out of that grew a very wide discussion of this subject.

From Raleigh comes an Associated Press dispatch stating that every member of the graduating class of the North Carolina State College Technical School has secured a job with the textile plants of that and nearby States, most of them being located in North and South Carolina. On the other hand a depressingly unfortunate statement comes from the University of South Carolina, where of 18 graduates from that university in the engineering department, 10 have left the State for positions elsewhere, only eight having found jobs in South Carolina and seven of those in the State Highway Department. Thus 10 South Carolina young men, full of vigor and energy, educated in engineering work, have found it necessary to leave their native State, in which they have secured their education, to go elsewhere for employment.

This drain on the vitality of the South has been going on for many years and in the aggregate tens of thousands of the most energetic, highly educated young men and women have had to seek employment in other sections. The economic loss to the South in this respect is beyond calculation, for in vain shall we boast of the South's natural resources and material opportunities if we permit this section to fail to create employment for its technically trained men and women. Until the South concentrates its energy more fully than it has yet done on industrial development, rapid as is the progress that it is making in that respect, in order that employment may be found for all of its people, whether technically trained or not, it will suffer an irretrievable loss which can never be fully regained.

Commenting on this situation, the Spartanburg Herald, referring to the eight graduates of the University of South Carolina leaving the State for employment elsewhere, says:

"This experience is perhaps duplicated in many lines, Southern boys well equipped going to other parts of the country to contribute their talents and lives to the development of other regions, when they are so greatly needed at home, if they could just establish the right connections. While we are urging the young men of other parts of the country to come South we should urge and aid the young men of the South to stay in the South."

The East and West, with their enormous industrial and general mechanical development, are eagerly bidding for the graduates from Southern educational institutions. Will the South, which is thus being drained of its very lifeblood, enrich by the work of these young men other sections of the country? Surely the people of the South, realizing this situation, must strive to create employment in all the varied lines of home activity for the benefit of their own people.

WHY TWO STRONG POLITICAL PARTIES ARE NEEDED IN EVERY STATE.

NO Florida citizen is more widely known or more highly esteemed in and outside of Florida than Col. Peter O. Knight, for many years one of the leaders of the business interests in that State. Colonel Knight is not only a great lawyer, but he is also a leading business man, identified in many ways with the upbuilding activities of the State. In an address made at Leesburg, Fla., in 1927, Colonel Knight, though a Democrat himself, expressed the thought that the development of a strong Republican party in Florida would be for the decided good of that State.

The theory is one which the MANUFACTURERS RECORD has long held as to the whole country. We believe that two parties, strong, virile and aggressive, are essential to the best interests of every community and every State. Whenever one party is in power for too long a time, as the Republican party, for instance, in Philadelphia, or the Tammany crowd in New York, it becomes corrupt. It is seen in small communities as well as in big cities; it is seen in county affairs as well as in State and national affairs. Wherever one party is strong enough always to be overwhelmingly victorious, it has no inducement to nominate only the very best men to be had. Where there is an active rivalry, and where the independent vote often decides the question at issue, each party is put on its mettle and renders the best service possible to the community or the State.

It was this thought which Colonel Knight expressed, and which immediately commanded wide attention throughout the country. Shortly after the address was delivered in August, 1927, the Tampa Tribune, one of the foremost daily papers of the State, editorially discussed the subject as follows:

"It is not often that a casual talk at a dinner attended only by citizens of one State and supposedly of interest only within the State becomes a matter of national comment. Yet this has happened in the case of a speech made by a citizen of Tampa, at Leesburg, incident to a meeting called by the State Chamber of Commerce to discuss plans for advertising Florida. Whatever may be the result of that meeting so far as a systematic advertising campaign is concerned, Florida is already receiving widespread advertising—but, it is from the speech, not the meeting or the systematic campaign.

"Peter O. Knight took occasion, in the course of his remarks at that banquet, to suggest the advantages of a strong and militant Republican party in Florida, and this was the spark that has kindled editorial fires in numerous important newspapers throughout the country.

"Colonel Knight is one of those Floridians—all too few, as it happens—whose utterances reach far beyond the boundaries of the State and find respectful hearing in eminent and influential circles. So, when the Colonel dared assert that a powerful Republican party in Florida would be a good thing for the State, attentive ears were cocked from Frisco to Wall Street and all points between, especially in those quarters which are deeply concerned for the political future of the South, whether hopeful for the smashing of its traditional solidity or devoted to maintaining said solidity.

"As a sample of the newspaper comment, we find the following in the editorial columns of the New York Sun.

"Florida's liveliest wire, Col. Peter O. Knight, in a recent address to the Florida State Chamber of Commerce, advised the Democratic newspapers of his State to encourage the strengthening of the Republican party in Florida. At first blush this appears odd, but Colonel Knight had logic with him. If Florida aspires to be a factor in national affairs, it must be a "debatable" State. The Colonel's mind pictured an election night with people milling in front of the newspaper offices and asking "How goes Florida?" exactly as they now wonder who's carried New York or Ohio."

"As we understood Colonel Knight's idea, it was for a Republican party in Florida strong enough to be threatening, but not dominant—sufficiently menacing to keep the Democrats astir and, primarily, to make a functioning Dem-

ocratic party organization necessary. We do not now have in Florida, nor have we had since 1900, a functioning Democratic party organization in this State. In that year the last Democratic State convention met and declared the will and the principles of the party. Since then we have had the form of a State committee, which gets together when a primary is scheduled and then relapses into a condition aptly described by the late Grover Cleveland. At the Leesburg dinner, challenged by Colonel Knight, no one could give the name of the chairman of this obsolescent body. The truth is that there is no organized Democratic party in Florida and there hasn't been a State Democratic platform in 27 years.

"If the strengthening of the Republican party in this State will produce a Democratic party organization and some degree of Democratic unity of policy and action—we say, let 'er strengthen! The populace may not lose sleep on presidential election nights wondering 'How goes Florida,' but, at least, Florida Democrats will know that they have been in a fight."

Here is a sad reflection on the so-called Democratic party of Florida, but it was made by a Florida newspaper and not by the MANUFACTURERS RECORD. We do know, however, that in many other States a long-dominant party, by whatever name it may be known, becomes corrupt and needs for its own good and for the good of the community a vigorous and aggressive antagonist. If it would be good for Florida for the whole country to be waiting for the election returns, as suggested by Colonel Knight, it would be equally good for every rock-ribbed Democratic State to be in the same category, and equally true as to every State tied by apparently unbreakable lines to the Republican party. Independence in voting, independence in thought, and aggressive work for the policies and the men for whom to vote would be to the best interests of the country and would relieve us from many of the evils which now oppress us.

The Hickory (N. C.) Daily Record in discussing this question of two parties said:

"One of the firmest planks in the platform of the ideal American citizen is that one by which he reserves the inalienable right to think and to act according to the dictates of his conscience. None the less inactive is his conviction that he may exercise this particular prerogative in his selection of the man to whom he will give his vote for first place in the Government—the Presidency.

"At this good hour there are many thousands of men and women who will depart, for one reason or another, from partisan politics and many of them will, perhaps for the first time in their lives, cast an independent vote. There are some life-long Republicans who will vote the Democratic ticket this fall. They have their reasons for so doing. Likewise, there are some very fine, very staunch and very excellent men who have stuck to the Democratic party through thick and thin, and yet they will consider that they have good reasons for departing from the hard and fast rule of voting the Democratic ticket. And who is there amongst us who can say they have not a perfect right to do so?

"Too long, perhaps, we of the South have followed the mechanical cut and dried habit of walking up to the polls like dumb driven cattle and vote the Democratic ticket just because Pa and Grandpa voted it. And too long have our neighbors to the north of us had no other or better reason for voting the Republican ticket. And it is to this policy of ours that we may find the answer to the question often asked as to 'how did we get this way?'

"There is a much quoted saying, 'My country, right or wrong,' as in excuse for not pulling away from corrupt politics. One is reminded of what Chesterton said, 'It is like saying, "My Mother, drunk or sober." ' And so if any man feels that he does not approve of Mr. Herbert Hoover or Mr. Alfred Smith, and if he finds fault with the Democratic party or the Republican party, he is none the less a patriotic citizen if he chooses to depart from the political faith of his fathers. This is his right and who can say it does not mean that for once in his life he is doing his own thinking? A little more private thinking would be a world of help to the machinery of each of the great parties."

Kansas City, Mo., has voted a \$1,000,000 bond issue for developing an airport.

Sectionalism Should Disappear Before a Broad Spirit of Nationalism.

The Editor of the Augusta Chronicle recently had a lengthy editorial raising the question as to what Robert E. Lee would say if he could return to earth today. In sending a copy of that editorial to the editor of the MANUFACTURERS RECORD a request was made as to what the editor of this paper thought Robert E. Lee would say or how he would act if he came back to earth. The reply given was as follows:

August 7, 1928.

Mr. Thomas J. Hamilton, Editor,
The Chronicle,
Augusta, Georgia.

Dear Mr. Hamilton:

You ask me what would Robert E. Lee, the great Christian statesman and warrior and educator, say if he came back to earth and saw the present situation in the South.

In my opinion General Lee would say to the people of the South: Let not the hatreds engendered by the Civil War rankle in the bosom of any Southern man or woman today. Let the people of the South realize that the time has long since passed for sectionalism, and with all the power at his command he would preach broad nationalism.

General Lee did not believe in secession, and only joined his life with the Confederacy when his own beloved state, Virginia, had seceded. But when after four years of titanic struggle he laid down his arms, he sought to impress upon the people of the South that the time had come for peace, for a reunited country, and he did all in his power to bring that about. Today, if he could return to earth and look over the present situation, I feel sure that he would with the utmost power of his vast ability oppose the political machines which are trying to crush and enslave the mentality of the people of the South.

Once more these political machines are trying to raise the race issue, though the people of the South as a whole have for years been trying to do all in their power to blot out the race issue and to cultivate the friendliest spirit between the two races. The political machines of the South know full well that Tammany controls the negroes in New York and will vote them very largely for its presidential candidate. These machines know that all through the South Democrats will appeal for the negro vote just as strongly as the Republicans will do. They know that according to the Memphis Commercial Appeal, 6000 negroes were permitted to register in the white Democratic primary recently. They know that they are trying to stir up race hatred once more, while the Christian people of the South, whites and blacks alike, have for years been trying to change race hatred into race friendship. They know that as the negroes are cooks, and the maids, and the nurses in most Southern homes, that the health as well as the moral training of the children of the South largely rest upon the health and the moral character of the house servants in this section.

In the Free Silver campaign of 1896, Hon. Hillary A. Herbert and other members of the Cabinet, Hon. Charles W. Dabney, Assistant Secretary of Agriculture, one of the best heads of that department which this country has ever had, all worked vigorously against the election of Mr. Bryan, and yet the political machines did not dare to denounce them or to talk of reading them out of the party. Many Southern papers voiced their bitter hostility to the Democratic platform on which Mr. Bryan was running.

Today, however, it looks as though Southern newspapers have largely lost that spirit of independence and that back-

bone which enabled so many of them in those days to stand for the truth as they saw it, regardless of the political machines or the denunciations of the politicians who can live only by party pap doled out to them in one form or another.

The people of the South know the tremendous blessing which has come to this nation by the adoption of the 18th Amendment. They know that a change so radical could not accomplish its full possibilities within a decade. They know that a curse which has been upon the world for untold centuries, the curse of drink, could not be eliminated except after a long struggle for law enforcement and for the broader education of the people. The older men of the day know full well that drinking was many times more prevalent long prior to Prohibition than it is at present, and that even before the Civil War drink was one of the great curses of this and every other country.

As far back as 1743 Lord Chesterfield, in the House of Lords, making an address of burning eloquence against the liquor traffic, said:

"Let us crush at once these artists in slaughter, who have reconciled their countrymen to sickness and ruin and spread over the pitfalls of debauchery such bait as cannot be resisted. I am very far, my Lords, from thinking that there are this year any peculiar reasons for tolerating murder, nor can I conceive why the manufacture of liquor is to be held sacred now if it is to be destroyed hereafter."

In this statement Lord Chesterfield was pointing out the evils of the whole liquor business and classing liquor dealers as murderers.

For many years the South worshiped at the shrine of free trade, though the great leaders in the Democratic party in early days were not free traders. They are getting away from that fetish, and Southern farmers and Southern manufacturers and business men generally are demanding a protective tariff—the same kind of a tariff that has helped to bring about the abounding prosperity of New England, Pennsylvania, Ohio and other states. If they can change their views on this point so readily as they are now doing, and vote contrary to the previous doctrines of the Democratic party, why should the political machines dare to say that they cannot vote against a nominee of the party who was nominated over the protest of millions of Southern Democrats? Forced by the tremendous unscrupulous power of Tammany, probably the rottenest political organization that has ever existed on the face of the earth, some Southern prohibitionists thought that they had gained a point in insisting upon a Prohibition platform plank, but no sooner was Governor Smith nominated than he kicked that plank overboard, and then appointed Mr. Raskob, a Republican, as the chairman of his campaign committee, who gave as his reason for accepting the position that he could in this way "Help relieve the country of the damnable affliction of Prohibition."

I think General Lee with all his power would appeal to the intelligent people of the South to vote with a due sense of their responsibility to God and to humanity. I think he would say that the liquor traffic has killed far more than were ever killed in war; that while there are some redeeming phases of war, there is not one single redeeming feature to the liquor traffic; and because Governor Smith stands for the liquor traffic I am sure that General Lee would beg the people of the South to oppose the election of any man who favored the liquor business either personally or through the power of his office.

No man has a right in my opinion, and I believe that Gen-

eral Lee would fully endorse this statement, to vote for Governor Smith unless he can, on his knees and in the sight of God, pray for the election of Governor Smith, with all the knowledge that he has of Governor Smith's determination to break down Prohibition if possible.

Has the time come in the South when the people of this section are not to have a right to think for themselves, to act for themselves, and to vote according to their conscience? Are they to be held in the chains of mental enslavement by the power of political machines who care only for political preferment, and who seek to retain their power by solidifying the vote of the South? In doing this they are raising every possible false issue. They are trying to bulldoze the people of the South who want to have convictions of their own, and who want the privilege of voicing these convictions at the polls. Surely if those mighty generals of old, Robert E. Lee and Stonewall Jackson, consecrated Christian men as they were, could once more return to earth they would fight the liquor traffic with a greater intensity, if that were possible, than they ever put forth on the battle fields of Civil War days. Who can imagine these two men permitting themselves to be bound, hog-tied hand and foot, by political machines which dared to say that unless they voted according to the dictates of these machines they would be read out of the party and bulldozed by such tactics? Heaven save the South from a subservient spirit which would permit such conditions to dominate its affairs at this late date, when we should think in terms of nationalism and not or narrow-minded sectionalism.

Nearly a quarter of a century ago the great cotton and banking house of Latham Alexander & Co. published in one of its annual reviews of the cotton trade, my photograph with some facts in regard to the work that the MANUFACTURERS RECORD had been doing. This was wholly voluntary, and connected with this publication was the statement that they were doing this because I had accomplished so much in breaking down sectionalism and encouraging a broad spirit of Americanism. This was, I believe, the most appreciated tribute I have ever had to my work. As a Virginian, with all the love born in Virginians of that state and of the South, with a full appreciation of the horrors of the Civil War, of which as a boy I saw a great deal, I have sought in every way in my power to break down the spirit of sectionalism, whether it found expression in the North, or West, or in the South, and to impress upon the people of this country that in the Providence of God the Confederacy failed, and now this should be one united nation, knowing no North, no South, no East, no West, except geographically; but every section rejoicing in the progress and prosperity of every other. This was the work to which General Lee was devoting the latter part of his life, and I feel satisfied that in all that I have said in this letter I am simply voicing what would be his views and his actions if he were living today.

You have sent me your editorial "If Robert E. Lee Came Back," and in your letter you have said "What do you think 'Marse Robert' would say if he came back?" I have given you my answer. I trust that you will give it publicity through The Chronicle.

Sincerely yours,
RICHARD H. EDMONDS.

Completing Two Virginia Cheese Plants.

Bristol, Va.—The new plant of the Kraft-Phenix Cheese Co., North Tazewell, has begun operation, and the Honaker plant will shortly be completed. Truck routes are being organized on all hard surface roads in the territory surrounding the two plants.

Cottonseed Oil Industry Seeks Trade Practice Code.

Columbia, S. C., Aug. 11.—A Code of Trade Practices for the cotton seed oil industry which would tend to insure publicity for seed prices and thus prevent unfair discrimination in prices affecting the oil mills, the farmers and the consuming public, is being considered, following a trades practice conference held at Memphis by the Federal Trade Commission.

There were approximately 160 representatives of the oil mill industry from 15 states at the conference, which was called at the request of the Interstate Cotton Seed Crushers Association.

"The cotton seed oil mill industry," says a resolution adopted at the Memphis conference, "believes that the oil mills, as the agency which buys the cotton seed and manufactures it into products of great value to mankind, fill a necessary and proper function in relation to a basic agricultural product, and are entitled to a fair return for such services. They owe a duty alike to the farmer who produces the seed and to the consuming public which buys the products thereof. That duty includes the obligation to pay a fair price for the raw material, to deal fairly with labor, to manufacture efficiently, to eliminate waste, to sell the products at a fair price, to develop new uses, to approve and encourage sound and fair trade practices and to condemn and prevent unfair trade practices. In order to perform that duty it is advisable to encourage proper and ethical principles in the industry, to the end that competition may be open and constructive and not secret and destructive."

Ceramic Industry in Arkansas Town.

Stamps, Ark, August 11—[Special.]—The discovery of large acreage of kaolin and high-grade fire brick and tile clay in this vicinity is believed to portend extensive clay products plants in Stamps in the immediate future. The discovery was made by the Stamps Chamber of Commerce while making a survey of the natural resources of Lafayette county, with the idea of industrial development. The Bodcaw Lumber Company is backing the Chamber of Commerce financially for the purpose of developing these natural resources, and making the present town of Stamps into an industrial and manufacturing city—working up the vast amount of raw materials into finished products.

An expert clay worker was brought in from Indiana to test the various clays, and in the experiment interested parties from Indianapolis split the cost of the test, with the idea of pioneering the brick and tile industry at Stamps. Seven of the clays were put in a beehive test kiln, and the result of this test, according to the expert, was that the kaolin clay would make premier fire brick, white tile and a very high grade of white or porcelain ware, while the other clays were adapted to the manufacture of buff and fancy building brick, fire and paving brick, hollow and drainage tile pottery. This expert further stated that the Stamps clays tested higher than any he had so far found over a large territory in three States.

It is stated that the Indianapolis parties, together with local capital, will begin at once the organization of a company to manufacture brick and tile and that outside interests will be approached to join local interests in the establishment of a porcelain plant.

\$600,000 Apartment Planned for Washington.

Washington, D. C.—Charles T. Treadway has awarded contract to H. P. Giddings, Washington, for erecting a \$600,000 apartment building at Connecticut avenue and Legation street, the structure to be 5 stories, of the Tudor type, brick stone, concrete and hollow tile construction. It will contain 86 suites of three and four rooms and baths. Louis T. Rouleau, of this city, is the architect.

Open Forum Discussions of National Economic and Political Affairs at the University of Virginia.

By GEORGE GARNER.

Charlottesville, Va., August 11.

From this supremely serene and beautiful corner of the great world's warm heart, scores of sound, patriotic American minds are surveying conditions throughout the earth and especially in the United States and particularly in the South, through the medium of the annual Institute of Public Affairs of the University of Virginia. Albeit the program is limited primarily to a study and discussion of governmental problems of national, state and local concern, and to the economic and social conditions underlying those questions, the Institute is emphasizing the domestic problems of the United States and is discussing them in broad and comprehensive fashion. The session opened on August 6 and will close next Saturday.

To the thoughtful observer, the atmosphere of the Institute and the character of the participants are by no means the least significant and interesting feature. The number of women present and their attitude offer food for deep reflection. The sincerity of the men and women in their desire to learn and in their wish to contribute of the best that is in them is another feature. True, a tendency is seen here and there to pedagogy and omniscience and, as is natural in a hot political campaign, partisanship erupts occasionally in the sessions devoted to political discussion. The two extremes of intolerant partisanship and sincere desire for knowledge were shown in a session on "Political Parties," under Dr. A. R. Hatton as leader.

Apparently determined to make a stump speech, a man arose and delivered a bitterly partisan address in favor of Governor Smith. His auditors grew restless, but restrained themselves until finally he sat down. Arose a lady and remarked:

"Mr. Chairman, I have traveled 36 hours, day and night, to come to the Institute in sincere search for information, instruction and enlightenment—may not I ask that partisanship be suppressed."

And women who gladly suffered the discomfort of 72 hours of travel to attend the Institute were not limited to half a dozen in number.

Probably, never before has Woman taken and shown such personal concern in public affairs. By actual count, at various sessions of the round table on "Political Parties," the attendance has been 67 per cent women. The average at discussions of "The Economic and Industrial Development of the South," under Dr. Bradford Knapp, has been 48 per cent women and 52 per cent men. At "Women in Modern Society," women naturally predominated, and even in discussions of "The Tax Problem" and "County and Township Government" they are well represented. So, too, in "The Agricultural Problem," "Our Latin-American Relations" and "Municipal Management," the women have been numerical and active participants.

"I am here to learn," says Woman, and it must be added that Man has considered himself fully competent to teach and more than anxious to do so—on his own, individual beliefs.

The contribution of the Institute to the moral, mental and material advancement of the South and the entire Nation cannot be computed; it well may be estimated as of incalculable value to the participants and to those to whom they relate their experiences and pass on the views they have heard and the knowledge they have gained. As Dr. Charles G. Maphis, dean of the University, said of the initial session of the Institute, last year, in his address of welcome, "The

one outstanding feature which commended the Institute to the reading and thinking public through this country was the spirit of tolerance and liberalism pervading the program and exhibited by the speakers," and such is an outstanding feature this year.

Surrounding Dr. Maphis as he spoke in Cabell Hall were hundreds of men and women of the highest type from virtually every corner of the country. Maturity in years and judgment was conspicuous, but the younger generation was well represented by thoughtful youths and maidens. To the great regret of all present, Dr. E. A. Alderman, president of the University, was unable to attend, and Governor Byrd also sent a message of regret.

Following the address by Dr. Maphis, the Institute got under full swing, in various group sessions and round table discussions. In each of the glorious old buildings—Cabell Hall, Washington Hall, Madison Hall and so on—the participants foregathered, some, indeed, gathering stores of information from three or four different meetings in one morning.

"The Economic and Industrial Development of the South," which attracted great interest, was opened by the reading of a paper prepared by the editor of the MANUFACTURERS RECORD, whose reference to the character of the South's men and women as the foundation of its greatness impressed those present greatly. Professor Broadus Mitchell of Johns Hopkins University followed with an exhaustive history of Southern industry, as he saw it, and general discussion followed. In this, a word of suggestion, almost a warning, was advanced by W. Gerald Holmes, manager of the industrial development department of the National Electric Power Company, whose duty it is to advise various cities on the character of industries to which the cities hold out welcome.

"I was impressed by a slogan of a Southern City, 'A mile of industries for each mile of railroads,'" said Mr. Holmes, "and I was moved to wonder whether in 'gaining the whole world,' a city or section might not 'lose its soul.' That is a question for Southern cities to ponder."

In effect, Mr. Holmes cautioned against over-enthusiastic quest, especially indiscriminate invitation, for industries for various cities and towns. Above all, he deplored the inducement of "cheap, white Southern labor" to attract mills from other sections. Southern labor, he maintained, should not be advertised and exploited in this fashion—it is unfair to Southern labor and to the South, and no such inducement is needed.

Whereat, Dr. Mitchell arose with characteristic plea for "downtrodden labor" and a "hope to God" that organized labor would find foothold in the South and gather the free Southern labor into its tentacles. The discussion on the unionizing of Southern labor closed with a question put to Dr. Mitchell:

"Would you prefer to trust the welfare and happiness of Southern labor, men, women and children, to the highly paid labor demagogues, mostly foreigners, who foment discontent and incite strikes and bloodshed, or to such Christian, Southern, American gentlemen as John E. Edgerton of the Lebanon Mills and scores of other Christian, Southern men of that type?"

Dr. Mitchell did not reply, but the other participants seemed to have no doubt on the subject.

Disapproval of the advertising of Southern labor as "cheap"

also was expressed by Dr. Knapp, who added that the South had sufficient advantages without placing its own people in such unfavorable light. The power sources of the South, for instance, are boundless, he said, with unlimited waterpower east of the Mississippi River and natural gas and other fuel on the west. He spoke of the opportunities for dairying and enumerated other natural advantages, and the information provided in Mr. Edmonds' address was frequently cited in various ways.

Among others slated to speak about the South at the round table gatherings of this group were Dr. Victor Clark, editor of "The Living Age," Cambridge, Mass.; Dr. William E. Dodd, professor of American History, University of Chicago; Dr. Gus W. Dyer, editor of "The Southern Agriculturist," Nashville; W. D. Ennis, director of research, Technical Advisory Corporation, New York City; George A. Levy, municipal engineer, Dallas, Tex.; Professor Wilbur A. Nelson, University of Virginia; George M. Rommell, United States Department of Agriculture; B. H. Van Oot, state supervisor of trade and industrial education, Richmond, Va., and Dr. Philip P. Wells, lawyer, Washington, D. C.

Although Professor Hatton, of Northwestern University, as leader of the "Political Parties" group, in his address could find little difference between the present policies and promised practices of the two great parties, the participants appeared to discover a number. One point which seemed to worry the uninformed was the trend of the South and the Democratic party in the South toward a protective tariff—to one on the sidelines it was apparent that Southern opposition to the American protective tariff was based on tradition and hereditary, rather than on knowledge and information. In few words, it was explained that the first law enacted by the first American Congress was to establish a protective tariff for American industries and that Jefferson, Monroe and Jackson were advocates of a protective tariff, all of which Dr. Hatton confirmed. To which an earnest lady arose and replied that it was a tariff for revenue only, and that a protective tariff never had been, is not now and never can be a Democratic doctrine.

"Why is the South now turning to a protective tariff and the North toward a lower tariff?" asked a Democratic voter.

To which Dr. Hatton replied that the South now has become an industrial section and seeks protection for its products, while capital in the North has loaned billions of dollars to foreign industries for which it seeks interest and principal payment through American importation of foreign goods.

From surface appearances, one gathered that the protective tariff no longer is a bugaboo in the South, especially among the women, and in short time the South may become an outspoken champion of American protection.

"The difference between the two great parties this year corresponds very closely to a difference in temperament," said Dr. Hatton. "It might be expressed by saying that Republicans want to run the Government and Democrats want to rush it. * * * It is my opinion that in the South, the stronghold of Democracy, there is today quite as much protectionist opinion as in most of the North. There may be some difference of opinion as to the degree of protection to be extended, but I doubt whether there can any longer be said to be any real party difference as to the continuance of the protection principle."

Going into the personalities of the candidates, rather than the principles of the parties, Dr. Dodd damned Hoover with faint praise and praised Smith with loud, qualifying damn.

"Herbert Hoover is not a bad chief," said Dr. Dodd. "He has had experience in great things. He is not handicapped for want of millions. Wilson took him from Belgium to conserve the food supply of the United States. At the end

of the war there was a move in the South to make him Wilson's successor, but he saw fit to attack the leader of a great cause, his own friend and benefactor. Like other great men, he thought best to leave a house that was under fierce attack; then, he attacked the head of the house. Southerners did not know how to take that," nor did they understand, he added, how Hoover could sit in the Cabinet with a man who swindled the American people. Dr. Dodd continued:

"At Houston, the Democrats shouted, sang and applauded the name of Wilson, while they nominated a candidate as far from Wilson as the East is from the West. * * * He must have his drinks, blow the foam off beer mugs and rest his restless feet upon the rails of the barroom long since outlawed. * * * Every Democratic candidate for President whom Tammany has supported from the days of Seymour to the days of Wilson has been defeated. Every Democratic nominee in that long period who was hated and opposed by Tammany has been elected—Tilden in 1876, Cleveland in 1884 and 1892, Wilson in 1912. But, the Governor of New York could not have been nominated without Tammany. * * *

"It is a confused situation; another turn of the great road. Let the wise man make choice. History hesitates."

Fireworks began to pop at the opening of the meeting on "Our Latin-American Relations" and continued to burst at frequent intervals. Dr. Latane, the leader, applying the punk in his initial address. "Dollar diplomacy" he denounced and the Monroe Doctrine he deprecated. Also, he asserted that early in 1927, so he had been told, the United States was prepared to declare war on Mexico, at the drop of the hat. Only a substitute resolution in the Senate, so he had been told, had averted that disaster. To which Guy Stevens replied that such was not a fact, and that war at that time, or any other, had not been even remotely considered or suggested.

"How are we to bring our foreign policies under constitutional or democratic control? This is a problem which American democracy has never before had to face and upon its wise solution depends the future of the Republic," Dr. Latane concluded, oblivious of the fact that the United States now is a democracy and not a republic.

Rather a dour view of the American political situation was taken by Dr. Ralph R. Lounsbury, speaking on "Sectionalism and National Politics," in the course of which he said:

"And how fares the South in its relation to the national parties? Its uniform political complexion, for 50 years or more, has given it little recognition at the hands of either. Because its support has not contributed to the prevailing victories of the one, it has had little claim to its political rewards. Its traditional adherence to the other has been so confidently assured that even its own party's logic asks, 'Why favor it, when it will vote the ticket, anyway?—let us reserve our benefits for doubtful sections.' The South, therefore, has been the compound victim of its political solidarity. Few national policies are shaped with it in view. And not until by its self-emancipation from political tradition it becomes an essential battleground for party victory would hope seem imminent for the consideration which is otherwise its due.

"With each recurring presidential year, we measure man's capacity to rule himself. * * * How, then, shall this responsibility be met? By following blind tradition? By motives of mere expediency? By making a fetish of local or state attachments? By notions of isolated, sectional self-interest? Or, with the larger purpose to advance the Nation in dignity, prosperity, material and spiritual power?"

While the program of the group discussing "The Agricultural Problem" was full of meat and interest, the main feature was slated for the middle of next week, when a debate is planned on the subject: "Resolved, That the present trends in our agriculture, resulting in the smaller relative and even absolute farm population, should be checked." Dr. O. C. Stine is to take the affirmative and Professor J. A. Dickey the negative. Among the other topics set down for discussion were: "What Federal and State aid should agriculture

receive?" "The Southern agricultural problem," "The agricultural surplus problem," "Where is agriculture now? and Where is it headed?" Among the speakers listed were Professor Dickey of the University of Arkansas, Eric Englund, special assistant to the Secretary of Agriculture; L. C. Gray, Bureau of Agricultural Economics; G. W. Koiner, commissioner of agriculture of Virginia; Clarence Poe, editor of "The Progressive Farmer," Raleigh, N. C.; W. J. Spillman, Department of Agriculture; Dr. Stine and J. W. Tapp, also of that department.

"Parties and Platforms of 1928" will be the subject for the Political Parties group on August 17, and among the speakers at the various sessions are Senator Carter Glass of Virginia, former Representative C. Bascom Slemp, Mrs. John Blair, chairman, Women's National Democratic Club, Washington; Henry W. Anderson, Richmond.

The group discussions of "The Influence of the Press in Public Affairs" are led by Dr. Victor Rosewater, and have among the speakers Dr. Willis J. Abbott, editor of the Christian Science Monitor; John Stewart Bryan, publisher Richmond News-Leader; Junius P. Fishburn, editor, The Roanoke Times-World; Boyd Gurley, editor, the Indianapolis (Ind.) Times; Don C. Seitz, New York; Robert Lathan, editor the Asheville Citizen, and Senator Glass.

"Taxation and Public Expenditures," under the leadership of Mark Graves, New York State tax commissioner, is being discussed by Professor W. B. Belknap, University of Kentucky; Oscar Leser, Maryland State Tax Commission; Fred W. Morrison, Raleigh, N. C.; C. H. Morrisett, Virginia Tax Commission; W. G. Query, South Carolina Tax Commission, and William J. Shultz, National Industrial Conference Board, Inc.

Under Dr. Aurelia Henry Reinhardt, president of Mills College, California, "Women in Modern Society" has among the speakers Mrs. Clarence M. Smith, chairman, national council, National Woman's Party; Mrs. Arthur L. Livermore, New York Republican State Committee; Miss Charl Williams, National Education Association; Miss Marie Obenauer, Washington, D. C.; Mrs. Emily Newell Blair, chairman, Woman's National Democratic Club, Washington; Miss Gail Laughlin, Portland, Me.; Miss Cornelia Adair, Richmond; Miss Roberta Wellford, Richmond; Mrs. Nellie Tayloe Ross, former Governor of Wyoming; Mrs. Sarah Lee Fain, Norfolk; Dr. O. Latham Hatcher, Richmond; Miss Adele Clark, Virginia League of Women Voters; Mrs. Helen A. Archdale, Washington, D. C.

"County and Township Government," under Dr. Kirk H. Porter, on August 17 will debate: "Resolved, That the county manager system should be introduced in Virginia."

The round table on "Municipal Management" is headed by Dr. Thomas H. Reed, University of Michigan, with several prominent speakers.

Atlantic Refining Company to Double Common Stock.

A proposal to increase the common stock of the Atlantic Refining Company, Philadelphia, from \$50,000,000 to \$100,000,000 and to reduce the par value from \$100 to \$25 per share, has been approved by the board of directors. A special meeting of stockholders has been called for October 15 to act upon the recommendation of the directors. Officials of the company have not announced what the additional stock will be used for, but it is thought likely that a portion of it will be employed to carry out the company's expansion program in West Texas, which includes a pipe line to the Gulf. A portion of the proceeds may also be used to retire \$20,000,000 7 per cent cumulative preferred stock outstanding and \$14,590,000 5 per cent debentures due in 1937.

Bonds Offered to Finance Erection Huge Paper Mill and Bag Plant at Tuscaloosa.

Tuscaloosa, Ala.—Through the Canal Bank and Trust Company and Watson, Williams and Company, both of New Orleans, La., the Gulf States Paper Corporation, successor to the E-Z Opener Bag Company, of New Orleans, is offering an issue of \$2,500,000 first mortgage 6½ per cent sinking fund gold bonds, proceeds from which will be deposited with the Canal Bank and Trust Company, trustee, to be disbursed by it under the terms of the indenture, for the construction and equipment of a paper mill and bag plant being erected at Holt, near Tuscaloosa. The Gulf States Paper Corporation was incorporated under the laws of Delaware in May of this year, and with no change in ownership or management succeeds to the business, and has acquired all properties of the E-Z Opener Bag Company of Decatur, Ill., originally organized in 1894, which has since engaged in the conversion of paper, specializing particularly in the manufacture of E-Z Opener bags, and since 1916 has been manufacturing Kraft paper at its mill at Braithwaite, La.

Properties acquired by the new corporation include the main office and bag factory at Decatur, the latter equipped with 47 bag machines producing 35 tons per day; bag factory at Orange, Texas, with 17 machines, having an average daily production of 12 tons; bag factory at New Orleans with 38 machines having an average daily production of 30 tons, and a sulphate pulp and Kraft paper mill at Braithwaite, with an average production of 45 tons of Kraft paper each 24 hours. In addition, it has acquired about 4000 acres of pine timber land bordering on the Bay of St. Louis, in Hancock County, Mississippi, and the property near Tuscaloosa.

The decision of the E-Z Opener Bag Company to acquire a site and erect a paper mill and bag plant at Holt, was brought about by its desire to insure a supply of Kraft paper for its bag factories without being forced into the open market, as has been necessary in the past, and to meet the demand of its customers for wrapping paper. It acquired a site of approximately 130 acres on the Warrior River, where it is constructing a modern sulphate pulp and Kraft paper mill to have a daily capacity of 100 tons of finished paper, or 30,000 tons annually. As the successor to the E-Z Opener Bag Company, the new corporation, with the output of the Braithwaite plant, will have an annual capacity of 43,500 tons of finished paper. For the purpose of effecting economy in operation, it will move its main office and bag-making plants from Decatur and Orange to the new mill.

As previously announced, general construction contract for the Holt mill is being handled by C. A. D. Bayley & Company, Inc., of New Orleans, while contract for a \$900,000 power plant to be operated by the Gulf States Service Co. has recently been awarded to the United Engineers and Constructors, Inc., of Philadelphia, Pa. The ultimate cost of the project is estimated at \$6,500,000. H. S. Taylor of Dayton, Ohio, is the consulting engineer.

Plans for \$1,250,000 Memphis Bank Building.

Memphis, Tenn.—Plans are expected to be ready August 20 for the \$1,250,000 building to be erected here by the Bank of Commerce and Trust Company and construction bids will be received soon after that date, in order that construction may begin in September. The new building, to occupy a quarter of a block, will be 150 feet square, 3 stories and basement, of the set-back type, and will be 60 feet in height from the street level. Polished granite will be used for the exterior and heavy ornamental bronze doors installed in two street entrances, while exterior windows will be of cast iron, steel and plate glass. Hanker and Cairns, Memphis, are the architects and R. Brinkley Snowden is chairman of the building committee.

August 16, 1928

Silica Gel Developing Into One of Chemistry's Great Contributions to Industry.

By RICHARD WOODS EDMONDS.

After seven years of aggressive development work by a capable technical staff, that much-discussed and little-known product, silica gel, has definitely turned the corner and come into very real and unquestioned usefulness. In bringing into play the curious force of selective adsorption it introduces a form of energy which, while long known in the laboratory is claimed by the Silica Gel Corporation to be new to industry.* It is now being used on a commercial scale in several fields in any one of which there are large possibilities, while a letter dated July 24 from C. Wilbur Miller, president of the Silica Gel Corporation, to his stock-holders, announces that "the results now being obtained in the many applications of silica gel have so attracted the attention of banking interests" (reported to be the Rothschilds) that they have paid \$2,000,000 for 80,000 shares of the stock of the Silica Gel Corporation, and have paid approximately \$2,500,000 for 49 per cent of the stock of the subsidiary, the European Silica Gel Company. The remaining 51 per cent of the European Company will be held by the Silica Gel Corporation, thus continuing its control of Silica Gel activities throughout the world, while at the same time securing the powerful protection of the great European banking house against infringement of patents.

In the field of refrigeration, highly successful tests extending over a period of more than a year have entitled it to be called the only successful refrigerant for mechanically chilled railway cars, while large commercial units such as those for apartment houses, butcher and delicatessen shops are being made. At least one of the greatest research staffs in the country is reported to have spent several years in an effort to develop a refrigeration machine that would stand the rough service of freight car use, and in vain; but the silica gel unit, without motor or pumps, and almost entirely free of moving parts, is so simple and rugged as to have given highly satisfactory service in a test of more than a year. It is a field in which it now has no competition from mechanical refrigerating equipment.

In the refining of oil and benzol, the Silica Gel Corporation encountered serious obstacles due, partly, to the unsatisfactory conditions in the oil industry, but more to the difficulty of supplanting an established practice backed by heavy investments, and for a long time progress was barely perceptible. However, work in this field is finally bearing fruit, for one commercial plant, operating with a silica gel unit since March 1, 1927, has reported decided success, and negotiations are reported to be under way for other installations.

In the dehydration of air for blast furnaces, progress likewise has been definite and clearcut. For decades it has been realized that great economies in fuel and improvement in control of the quality of the pig iron could be effected if the moisture could be removed from the air blast before it was blown into the blast furnaces. Many expensive dehydrating plants have been tried, only to be abandoned as they cost more to operate than they saved. However, the simplicity, economy and long life of the silica gel dehydrating unit seems to have solved the problem. The Glasgow Iron and Steel Company, of Wishaw, Scotland, reports important economies by the use of its silica gel dehydrating unit. The Silica Gel Corporation is now working on plans for dehydrating equip-

ment that will lower the summer-time humidity, and thereby increase the comfort and healthfulness of homes, office buildings, apartment houses, theatres and other buildings.

These are the three fields in which silica gel has made greatest progress. Others, of unguessable possibilities, are opening before it. What is this product, and what are the properties that give it so wide a range of usefulness?

Chemically, silica gel is the same as common sea sand,—silicon dioxide, or silica. Physically it is very different, for while a grain of sand is solid and impervious, a grain of silica gel is honey-combed with myriads of infinitesimal pores, like a microscopic sponge, and is therefore capable of absorbing liquids or of adsorbing gases.

To absorb is to suck up, as a sponge, either a gas or liquid. To adsorb is to condense the absorbed substance. Thus, liquids, being non-compressible, can be absorbed but not adsorbed, while gases, being highly compressible, may be not only absorbed but condensed within the pores, and therefore adsorbed. Silica gel possesses the capacity for absorption and for adsorption to a high degree. In oil refining it absorbs the impurities; in dehydrating air it adsorbs, not water but water vapor; and in refrigeration it adsorbs the vapor of the refrigerating liquid.

All of the usefulness of silica gel depends upon this simple property. Other oxides besides that of silicon possess the same property to some degree, but none of the others are so durable, and while the Silica Gel Corporation controls patents on them, the oxide of silicon is the only one that can be used indefinitely in heat, in acids, under the rough handling of such industrial processes as refrigeration of railway cars, without deterioration. Like glass, it appears to be everlasting; but unlike glass, it can be crushed and still be useful.

Silica gel is made by treating sodium silicate, or water glass, with sulphuric acid. The resultant product is a jelly-like mass which must be dried and crushed to be used. The size of the grains is determined by the use to which it is to be put, and varies from pea-size to a powder as fine and white as flour. That used in refrigerating units is about the size and general appearance of ice cream salt, while for cosmetics such as Sylox it is ground to an impalpable powder.

The pores in silica gel are too small to be seen by any microscope, their existence being deduced by the gel's behavior. Some idea of their extreme minuteness, as well as an indication of the material's toughness and durability, is indicated by the fact that even when ground to an impalpable powder the gel retains to the full its adsorptive capacity.

Refrigeration.

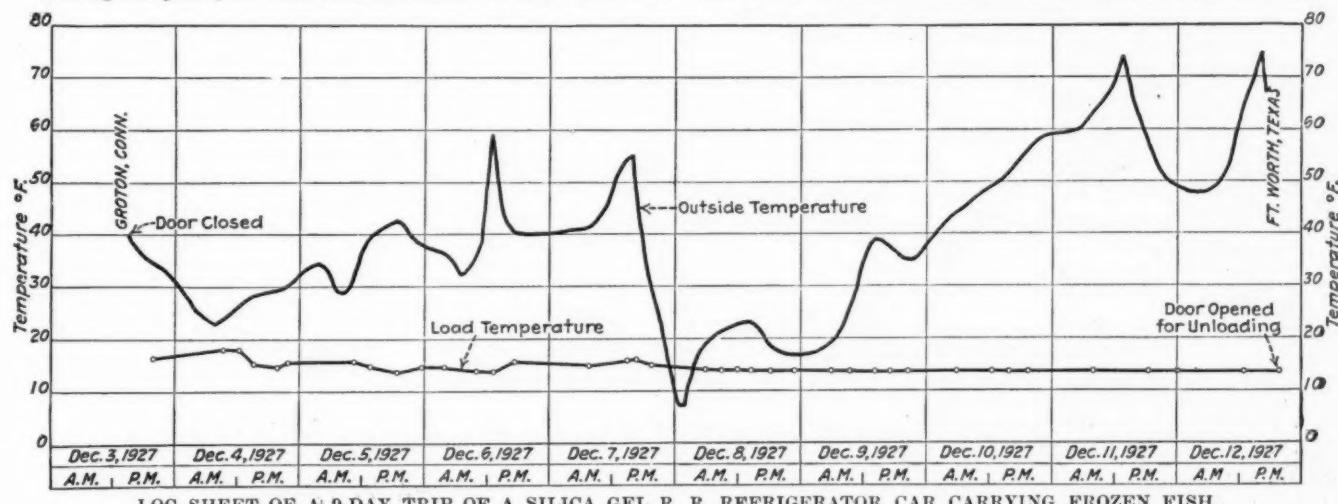
The field in which silica gel has made the most spectacular and most generally understandable progress is one in which there is intense competition—refrigeration. But in one large section of that field, the refrigeration of railway cars, the old method of the use of large quantities of ice has held undisputed sway. A silica gel refrigerating unit is the only form of mechanical refrigerator that has so far offered any serious threat to that complete dominance. For more than a year a pioneer demonstration car equipped with a silica gel unit has carried perishables from one corner of the nation to the other, and has done it so successfully that the Safety Car Heating and Lighting Company has been building 30 more such cars, 25 of which will be used to carry frozen fish from New England to Texas and other western states—

*Any reader desiring a technical distinction between the action of such materials as bone black as used in sugar refining and the selective adsorption of silica gel is referred to the chemists of the Silica Gel staff.

probably the most exacting service in which a refrigerator car can be used. It is reported that the Safety Car Heating and Lighting Company put five of these "Silica Gel Iceless Refrigerator Cars" in service on July 10th and that five more were completed by August 10th. These cars will be thoroughly tried out before large pending contracts for more cars are closed.

During the past year that demonstration car carried a load

ends. The difference may run as high in warm weather as 10 degrees. If the ends are at the proper temperature for the cargo, the center is too warm, while if the center is right, the ends are too cold. In either case, deterioration results. It is impossible to maintain an even temperature or to control the temperature in an iced car. On a long trip the temperature rises between icings, and sudden, great changes in weather conditions may cause serious damage.



R. REFRIGERATOR CAR CARRYING FROZEN FISH.

of fish from Groton, Conn., to Fort Worth, Texas, and maintained an even temperature of 12 to 13 degrees throughout the 9-day run, as the chart shows. Fish shipped in cars cooled by ice must be frozen before starting, re-iced on the way, and if they go west of the Mississippi, must be unpacked, refrozen in a cold storage plant, and reloaded in a freshly-iced car, with considerable damage to the cargo. The silica

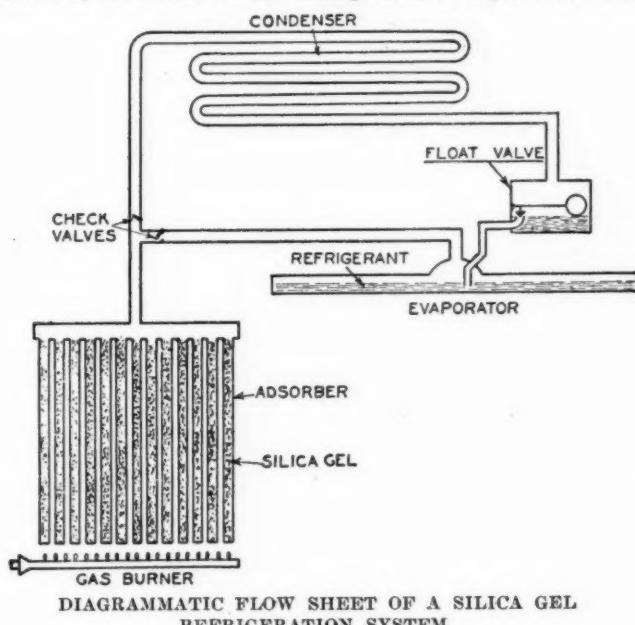
On another trip, that pioneer car carried a load of cantaloupes from Colorado to New York City, and the range of temperature of the fruit in different parts of the car at arrival was less than one half of one degree, being from 39 to 39.4 degrees. The ideal temperature for shipping cantaloupes is from 38 to 40 degrees, while that for fish is 10 to 12 degrees, for meat, about 31 to 35 degrees. The thermostatic control of the silica gel refrigerating unit permits the temperature of the car to be maintained at any point for which the indicator is set.

If it were possible to secure complete figures of carloads of goods shipped in refrigeration, the statistics would provide an interesting field for speculation, but as far as I can learn, no such figures are compiled. However, some fragmentary figures gathered from various sources by the Bureau of Railway Economics are available. There are probably 200,000 refrigerator cars in the country. In 1927, 664,170 carloads of fresh fruits and vegetables were moved in refrigerator cars. In addition, there is a record of 375,000 refrigerated carloads of fresh meats, eggs, butter and cheese. These two items add up to a total of 1,021,170 carloads. The greater proportion of refrigerator cars being privately owned, complete figures are not available to the public.

One of these private agencies, the Fruit Growers Express Company, reports that shipments of fresh fruits and vegetables from Florida, Georgia, North Carolina, South Carolina and Virginia traveled a total of 19,300,000 loaded car-miles in 1925. While these figures are for only 5 states, they are highly suggestive of the field that awaits a successful mechanical car refrigerating unit.

The only item in a silica gel-refrigerated car that has to be renewed is the gas necessary to periodically heat the gel and reactivate it. This is carried in a tank under the car, similar to the tank used in gas-lighted passenger cars, and the service methods and organization to be used in servicing the refrigerator cars will be similar to those developed for the Pintsch gas lights on passenger cars.

In order to properly explain the function of silica gel in the refrigeration unit, it seems necessary to explain briefly how artificial refrigeration is brought about. Any reader already familiar with the subject may therefore skip the next paragraph.

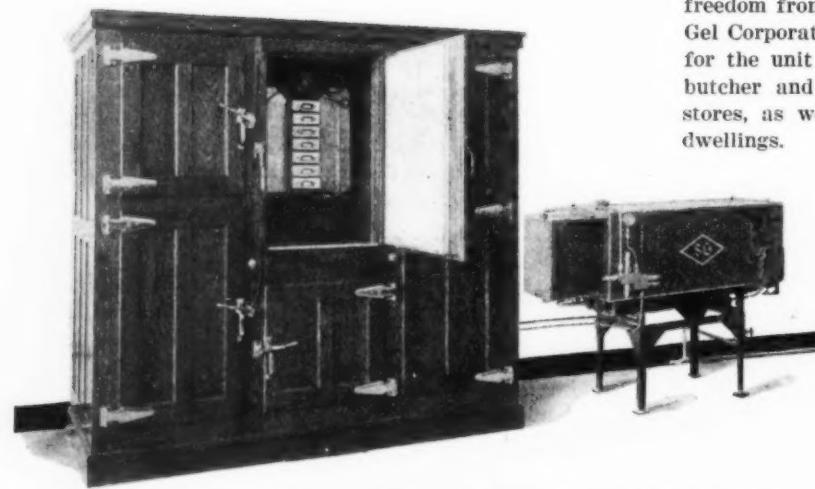


DIAGRAMMATIC FLOW SHEET OF A SILICA GEL
REFRIGERATION SYSTEM.

gel car needed no attention from start to finish, and the load was undamaged.

The same pioneer car carried a shipment of meat from the Jacob Dold Packing Company's plant in Buffalo to Kansas City, maintaining an even temperature of 31 to 33 degrees throughout. An ice-cooled car is subject to a high degree of moisture and rising temperatures between icings, both of which cause damage to the meat, while the dampness causes early rotting of the car.

In an ice-cooled car it is not possible to keep the center of the car, between the doors, at the same temperature as the



SILICA GEL REFRIGERATOR UNIT (Right) AND LARGE CABINET OF RESTAURANT TYPE.

The Silica Gel unit may be placed at any convenient distance from the box.

If a metal tank be half-filled with some very volatile liquid such as ammonia or sulphur dioxide and closed air-tight, some evaporation will take place, but only enough to raise the vapor density in the vessel to the point at which evaporation of the liquid ceases. There is then equilibrium between the liquid and the vapor. If a pump is connected to the tank and air forced in under pressure, some of the vapor will be forced back into the liquid form, while the temperature of the tank will be raised. But if a suction pump is substituted for the compressor and all air drawn off, leaving a vacuum, evaporation will start up again, and will continue until the vapor density once more reaches the point of equilibrium. The process of evaporation chills the liquid remaining behind, and, of course, the tank containing it. Fundamentally, this is all there is to artificial refrigeration, and difficulties and differences in various systems are concerned with the selection of the best volatile liquid, and the best method of removing the vapor from the chilled tank (or coils), in order that the evaporation, and the consequent chilling, may be continuous. In a standard domestic or commercial refrigerator plant such as one used in a butcher shop, the tank (or coil) containing the volatile fluid is inside the refrigerator box, and is connected by a pipe to a motor-driven pump placed outside the box. The pump sucks off the vapor, thereby permitting further evaporation. The same pump serves as a compressor, forcing the vapor into a coil under pressure, where the heat extracted from the refrigerator in the cooling process is liberated into the atmosphere, the vapor reduced again to liquid form, and from which the liquid flows by another pipe back to the coil in the refrigerator.

In the silica gel refrigerator a set of pipes packed with silica gel takes the place of motor and compressor, with their piston, belt, flywheel, flapper valves and stuffing boxes. The adsorptive power of the silica gel serves to draw off the vapor, in this case sulphur dioxide. When the silica gel is saturated, a gas flame, automatically controlled by a thermostatic device similar to that used for an electric refrigerator, heats the gel, thereby driving the gas from its pores and "reactivating" it. From the gel the gas goes to a condenser coil, where it is reduced to a liquid, and whence it returns to the refrigerating coil. There are no moving parts in the refrigeration cycle, unless the valves and the small fan which hastens the process of cooling the condenser coil may be so classified.

It is because of this simplicity of construction, and elimination of nearly all moving parts, that the silica gel car refrigerating unit is able to withstand the jolting and jarring of freight car service. It is this same simplicity and relative

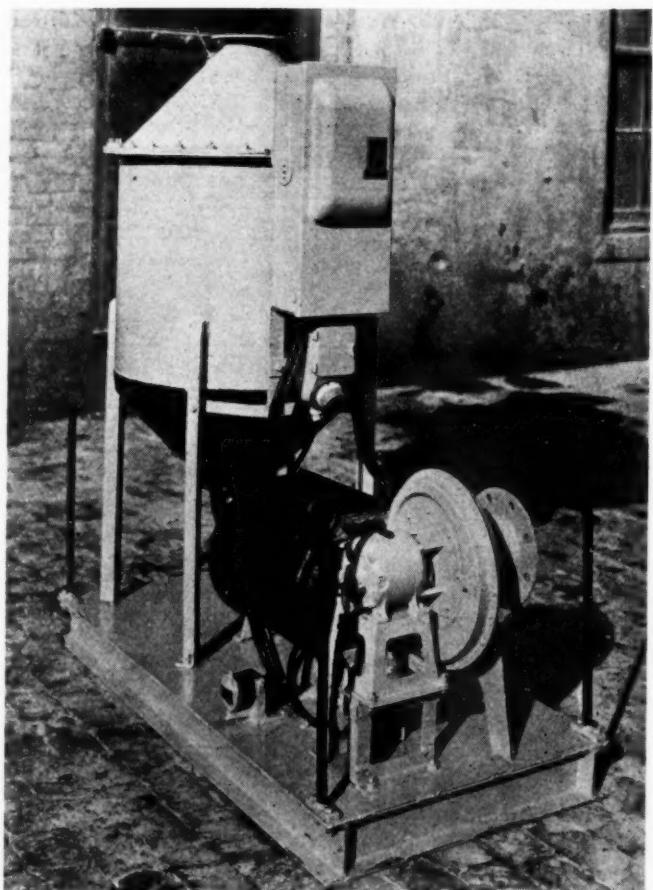
freedom from maintenance costs which encourages the Silica Gel Corporation to feel confident of a large field of usefulness for the unit in refrigerators for commercial plants such as butcher and florist shops, ice cream cabinets and grocery stores, as well as large apartment houses and, eventually, dwellings.

The Corporation is now entering the field of commercial refrigerator units. The gel is indestructible, and one lot will perform its function indefinitely without deterioration. By a simple arrangement of piping, a single unit placed in the backroom or basement will cool several boxes, cases and cabinets in one shop, or all of the refrigerators in the individual pantries of a large apartment house. The Warrington Apartments, now under construction and to be the largest apartment house in Baltimore, is being equipped with such a system.

For silica gel the great realm of refrigeration for ocean vessels for carrying cargoes of fruit, meats and other perishables lies wholly in the future. Suffice it to suggest that the silica gel unit is compact, and that the waste heat from the boilers will serve for reactivation.

Petroleum and Motor Benzol Refining.

While the refining of petroleum is the field in which the effectiveness of silica gel as a selective solid absorbent was the first successfully demonstrated, it is one in which progress



SINGLE ADSORBER DEHYDRATION UNIT, PORTABLE TYPE.

until recently has been very slow. With the steadily increasing use of cracked gasoline, both liquid and vapor phase, it is believed the use of silica gel for refining such products should become more general, for, it is claimed by the Com-

pany, such treatment results in a greater yield of high grade finished product than is now possible by present sulphuric acid treatment. It is understood that four of the largest oil corporations in the country are co-operating with The Silica Gel Corporation in the development of this very interesting field.

The refining of light oil (a by-product from coke ovens) for motor fuel purposes, is a closely allied field. The first commercial silica gel plant for this purpose was contracted for by the Rochester Gas & Electric Co., for installation at their Rochester Works, and the plant went into operation in March, 1927. The 1928 issue of the "Rochester Gas & Electric Year Book and Statement," says of this plant:

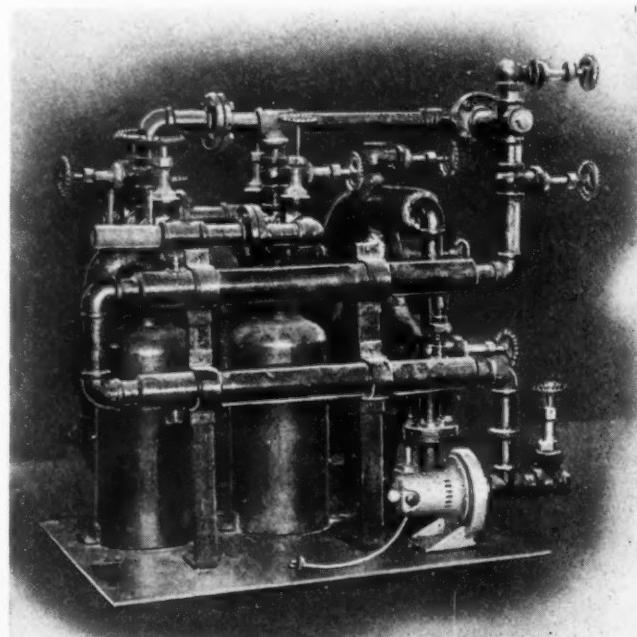
"Two major improvements were inaugurated last season which deserve mention. They are the use of silica gel in light oil refinement at East Station, and * * *."

"The silica gel plant, the first commercial plant of the kind in the world, reduces by approximately 80 per cent the amount of sulphuric acid and caustic soda normally used in the purification of the by-product light oils which are used in the manufacture of Bengas. These two mediums of purification were expensive and they also destroyed the unsaturated hydrocarbons which are excellent motor fuels in themselves if left unchanged. Silica gel as now used in the purification processes at East Station removes the impurities in the oil without disturbing the desirable unsaturated hydrocarbons. By this means, the yield of salable motor fuel is increased by approximately 12 to 15 per cent, with no increase in the cost of purification over the more destructive and inefficient former method. The installation of this plant followed an intensive investigation of the merits of silica gel, carried on at the Baltimore experimental plant of the silica gel corporation. Silica gel is made by processing sulphuric acid and sodium silicate. Its chemical composition is almost exactly like that of sand or quartz, though its structure is entirely different. If a microscope sufficiently powerful to see the minute structure were available, silica gel would present a

reactions desired in purification processes.

"The silica gel plant has been in operation since the first of March, 1927. It has been a source of profit and satisfaction to the company and has drawn to Rochester scores of visiting engineers from this country and abroad."

And an article written for the "Gas Age-Record" of May,



SILICA GEL UNIT FOR PURIFYING ETHYLENE GAS.

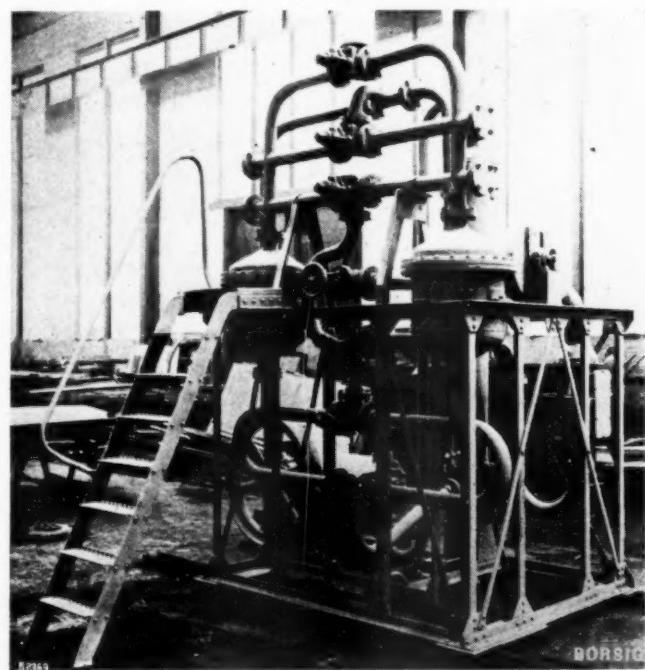
1928, by R. E. Kruger, Superintendent of the Gas Manufacturing Department of the Rochester Gas and Electric Corporation, states that:

"Probably the most pertinent statement relative to the gel process is that we have increased our yield of rectified light

* Author's note.—A gram of silica gel molded in the shape of a cube would be about $1/10$ of a cubic inch in volume, or just a little larger than $\frac{1}{4}$ of an inch on a side. Before I could believe that so small a fragment could possibly have a surface area in its pores, or even on all its molecules, of 5000 square feet (roughly as much as a space 71 feet square) I had to make some computations of my own. Possibly my figures may be interesting to other skeptics.

I imagined a cubical figure 1 inch on a side, made up, not of solid material but of a nest of infinitesimally thin shells, each having 4 plane sides and 2 open ends, fitting one within the other down to the smallest which would be a tube 1 inch long and of hair-like, but square, cross section. I imagined that all of these shells were separated from each other by spaces as thick as the shells themselves, which should be of something approaching one molecule in thickness. Not knowing just how thick a molecule of silica gel might be, I assumed that there were 2,000,000 of the shells. On this basis there would be 8,000,000 molecules laid in a straight line to the inch.

The outer shell, being made up of 4 square sides, each 1 inch square, would have an outer surface area of 4 square inches and an inner surface area approximately the same, or 8 square inches in all. The innermost one, being nothing more than a straight line, would have a surface area that, for our purpose, we may call zero. The shell half-way between these two would have four sides, each 1 inch long and $\frac{1}{2}$ inch wide, and would therefore have a total outer and inner area of 4 square inches, or half that of the largest one. This shell would be the average, half way in size between the largest and the smallest, and if we multiply its area by the number of shells, or 2,000,000, we get 8,000,000 square inches for the total area of the shells. But an area of 8,000,000 square inches is equivalent to 55,555 square feet. Since the gram of silica gel would have a volume of $1/10$ of a cubic inch, it becomes evident that its area could very well be something like 5555 square feet, or the rough estimate mentioned above, of 5000 square feet.

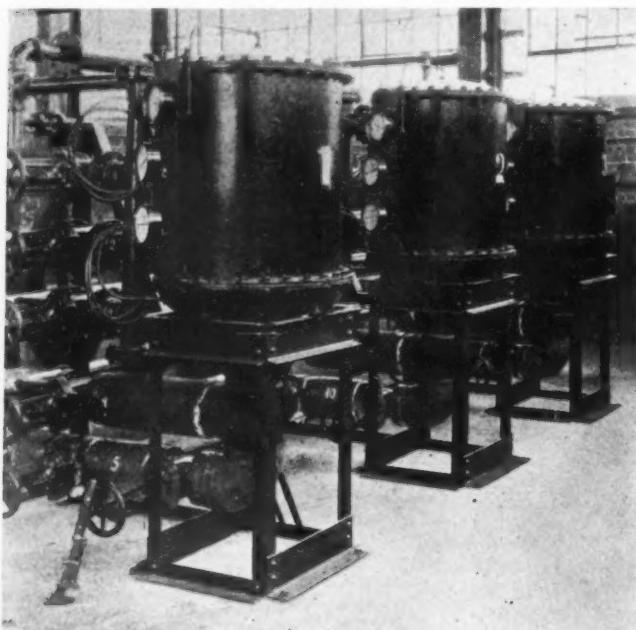


DOUBLE ADSORBER FOR RECOVERING SOLVENT VAPORS.

decidedly spongy appearance. Each tiny sand-like grain has hundreds of air cells and it is estimated that one gram of silica gel has an exposed surface equivalent to 5000 square feet.* The function of silica gel is to bring about through this feature of exposed surface by means of catalysis chemical

oil from a given crude to the extent of 13 per cent.

"The cost to us, including all operating labor and material and royalty, is about three-quarters of a cent more per gallon of crude light oil treated than with the acid process, and to



MULTIPLE ADSORBER DEHYDRATION UNIT FOR CONTINUOUS OPERATION.

offset this added cost we have the increased yield of refined light oil by some 13 per cent.

"This increased cost of three-quarters of a cent per gallon crude light oil treated is taken from a period over which the average throughput of crude light oil per day was only 1580 gallons. If the plant were operating at rated capacity the increase would undoubtedly be considerably less, because total labor per day would not change."

In further explanation of this increased cost, the company states:

"A plant having a capacity of over 7000 gallons per day, when operated on an average daily throughput of less than 1600 gallons (as is the case at Rochester), must necessarily show relatively higher operating costs.

"Comparisons of direct per gallon operating costs, including license fee of the silica gel process, with such costs as are obtainable on sulphuric acid chemical treatment, shows them to be practically the same up to 10,000 gallons per day capacity. Above this amount the silica gel operating cost per gallon of crude light oil is somewhat less than in the case of the acid treatment. Assuming an increased yield of 10 per cent, and a market price of 20c per gallon for motor fuel, the producer would realize two cents more per gallon than by present methods.

"Particular attention is drawn to the fact that the above comparisons are based on crude light oil treated, and not finished motor fuel. The actual increase in amount of salable product secured by the silica gel process amortizes first costs of the plant in a very short time and yields a satisfactory return on the investment.

"The silica gel process makes it possible to retain the highest percentage of desirable unsaturated hydro-carbons in light oil, resulting in a greater yield of high grade finished product per gallon of crude treated, and at no greater cost."

Dehydration of Air.

The third large field in which silica gel has made substantial progress, as I said earlier in this article, is in the dehydration of air blasts for blast furnaces. Last September, at

a meeting of the Iron and Steel Institute in Glasgow, Edwin A. Lewis, M. A., General Manager of the Glasgow Iron and Steel Co., Ltd., of Wishaw, Scotland, read a paper describing the silica gel dehydrating unit his plant had then been operating for 6 months, or since April 13, 1927. In introducing his subject Mr. Lewis said:

"The varying amount of moisture in the atmosphere and its effect on blast-furnace practice has, for a long time, been of interest to ironmasters.

"The desirability of constant blast moisture is generally agreed, if such a result can be procured at a reasonable initial and running cost.

"Many attempts have been made, and processes suggested, to obtain such a constant blast, either by freezing or by absorption of the moisture chemically with calcium chloride, sulphuric acid, etc. There has been much discussion concerning the merits of these processes, and the criticisms can be summarized under three heads:

"(1) That these absorption methods have proved impracticable.

"(2) That freezing is too expensive in maintenance and running costs in comparison with the results obtained.

"(3) That in all cases the money spent would have been better spent in improving other conditions, such as increasing the blast temperature."

Mr. Lewis described the plant and its operation with a richness of technical detail that would be of interest only to blast furnace men, but his conclusion was stated in the following words:

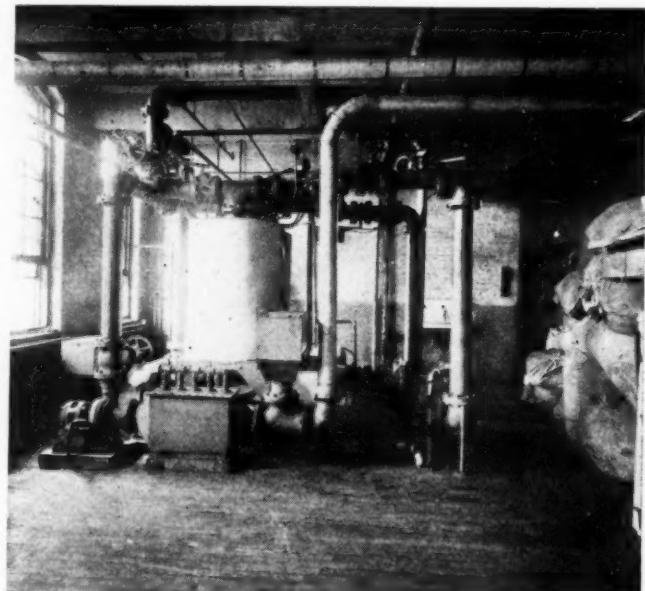
"Taking everything into account, the plant at Wishaw, so far, shows a substantial return on the capital cost."

Under the date of June 20, 1928, Mr. Lewis wrote me in reply to my inquiry as to the continued success of the Silica Gel unit:

"The results for the first 12 months show an increase in output of 14.55 per cent with a saving in fuel of 4.7 per cent. We estimate that the quantity of moisture removed during the twelve months was 1456 tons.

"I would expect that the results would be more outstanding in the majority of other blast furnaces. Our normal moisture in this northern climate is very low and our blast temperature distinctly high."

The discussion which followed the reading of Mr. Lewis'



SILICA GEL AIR-CONDITIONING PLANT, CROWN CORK AND SEAL CO., BALTIMORE.

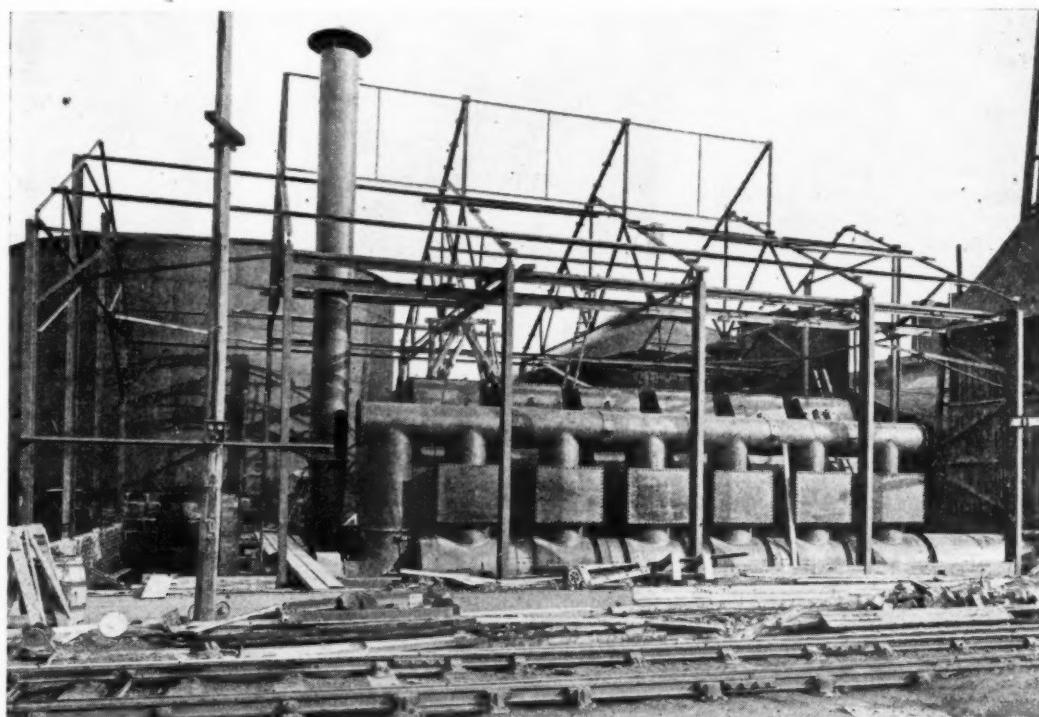
paper last September showed the lively interest taken in the subject by the other members of the Iron & Steel Institute. Mr. William Simons spoke of the Gayley process as having everywhere cost more than it was worth, and as having been abandoned in most instances. Some points discussed were the importance of the saving in fuel due to the elimination of

excess moisture from the air blast, and the value of a constant degree of moisture in maintaining a constant grade of pig iron.

Prof. C. H. Desch said the process of drying by using some adsorbing material for the moisture, which had been tried at

The field for satisfactory dehydrating units appears to be interestingly diversified, and if the miscellaneous applications being made of specially-designed silica gel units are any indication, it may prove to be very large also. For example, the Silica Gel Corporation has on the market equipment for de-

hydrating and purifying such gases as air, oxygen, carbon dioxide, hydrogen, helium, acetylene, and various refrigerants—all of which are being used in increasing volume. These units are designed not only to extract the moisture, but also to remove impurities, such as the petroleum fumes that are liberated when the heat of compression causes a partial cracking of the lubricating oil used in the cylinders. The Linde Air Products Corporation uses this equipment in a dozen or more of its plants for dehydrating compressed air in the preparation of compressed oxygen. The Western Electric Company has an installation for dehydrating the air in the cable room. This is the room in which the individual



AIR DEHYDRATION UNIT FOR BLAST FURNACES OF GLASGOW IRON AND STEEL CO., LTD., IN COURSE OF CONSTRUCTION.

so many places, depended entirely on the perfect reversibility of the drying agent. He understood the experiments made in Germany with calcium chloride failed, because the process could never be made perfectly reversible. A very slight overheating of the calcium chloride during re-activation spoilt it. The most remarkable feature of the material silica gel was that it seemed to be perfectly reversible. He had had occasion recently to watch the behavior of silica gel in entirely different experiments, and quantitatively expressed as the adsorption of various organic vapours. One specimen of silica gel in use for three years had been used over and over

wires of telephone cable are encased in the lead tubing, and if any moisture gets into that casing along with the wires it causes short-circuits and endless trouble in the cable when it is put into service. The Crown Cork and Seal Company of Baltimore, which makes the little cork-lined metal caps used on ginger ale and other soft drink bottles, has a silica gel dehydrating unit in the cork room, the purpose of which is to insure constant temperature and humidity conditions. Fresh cork stored damp becomes mouldy.

A few months ago, when the Navy Department was endeavoring to raise the submarine S-4, great difficulty was encoun-

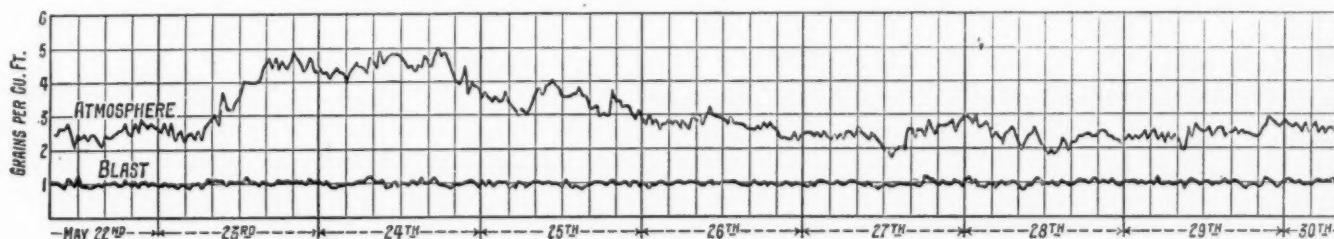


DIAGRAM SHOWING REGULATION OF MOISTURE IN BLAST FURNACE WITH SILICA GEL.

again for adsorbing all kinds of vapors. Recently the original specimen was put through the first experiment to which it had been subjected three years ago, and the curves of adsorption obtained for the vapor were exactly the same. That statement could not be made of either calcium chloride or charcoal.

The chart presented by Mr. Lewis and reproduced in this article gives an eight-day record of the high and variable moisture content of the air coming into the silica gel unit as compared with the low and constant moisture content of the blast leaving the dehydrating unit.

tered in pumping air down to the divers, because the air hose repeatedly became choked by the freezing of the moisture in the air stream. The Silica Gel Corporation received a wire offering a bonus for the construction within 30 days of a dehydrating unit of special design to dry the air for pumping down to the divers. The unit was constructed and sent off, and the bonus paid. The Navy is trying out a silica gel unit of different design in dehydrating air in submarines while tied up at the dock, with a view to protecting the machinery from rust.

While such uses as that by the Linde Air Products Corpo-

ration are well established, its application in the Navy is still on an experimental basis.

Still another field for dehydration which we may touch only in a spirit of conjecture, but which is too large and interesting to ignore altogether, is that of the dehydration of the air we breathe indoors.*

Today a good many theatres are using air cooling systems. Warm air is physically capable of carrying more moisture per cubic yard than cool air. Therefore when humid—or very damp—warm air, such as the average summer air of a large part of the country, is cooled, it becomes excessively damp, and the refrigerating equipment must be supplemented by some sort of dehydrating equipment to take out this excessive moisture. But much of our summer discomfort, especially along the Atlantic seaboard, is due to excessive humidity. Therefore, a device that will greatly reduce the humidity of the air in a room will likewise reduce the discomfort of that room without actually lowering its temperature. With this in mind an organization of building supply dealers, in designing a demonstration house to be built of steel and concrete and to embody all the most improved aids to comfort and convenience, asked the Silica Gel Corporation to devise a unit for dehydrating, or de-humidifying, the air of the house in summer. The specifications stated that the house was to be of moderate size and to cost no more than a similar house of timber framing; and that the heating system would use hot air blown by forced draft through scientifically placed registers, returned to the heating plant and thus continually circulated, endeavoring thereby to effect a higher degree of control of temperature in all rooms, better circulation and better conditioning of air, and greater economy of heating than can be secured by the old hot-air heating system, hot water or steam. The dehydrating unit was to be designed as an integral part of this system, the same fan blowing hot air in winter and dehydrated air in summer, and economy of first cost and operation were specified as essential.

Such a system, while not actually lowering the temperature, provides the same effect at less cost than is possible for refrigeration of the air.

In this connection it is interesting to note that the newspapers a short while ago announced that the General Electric Company had appropriated \$2,000,000 for research into ways and means for cooling the air of our homes.

We have made great progress in systems for warming our buildings in winter, and it is high time a little of the inventive genius of the nation turned its attention to conditioning the air indoors in summer. Whether we have our homes, apartments, offices and other buildings cooled by silica gel or by some other method, it seems

*As this article goes to press, word comes that a contract has just been closed for a silica gel air-conditioning plant for a theater to seat 6000 people in Southern California.

highly probable that before many more summers have wilted our collars and our spirits, science and industry will have made life indoors much more comfortable in hot weather.

Miscellaneous Uses.

While refrigeration, refining of oils and dehydration of air are the three fields in which the most marked progress



SILICA GEL BENZOL REFINING PLANT, ROCHESTER GAS AND ELECTRIC CO.

has been made and in which, also, the greatest possibilities are now visible, there are several miscellaneous uses worthy of mention.

In my article on Davison Chemical, published in the MANUFACTURERS RECORD of July 5, I described the use of silica gel as a base for the platinum catalyst in the contact sulphuric acid plant. In this instance, according to the Davison Chemical engineers, the platinum for a catalyst of the usual type would have cost \$100,000 while by using the silica gel base it



BERLIN-TEGEL PLANT OF A. BORSIG, G. m. b. H., REPRESENTATIVES OF SILICA GEL IN CENTRAL AND NORTHERN EUROPE.

was possible to save \$80,000 worth of the precious metal, and get the same results with only \$20,000 worth. This may be due to the porosity of the silica gel base.

Another use is in the manufacture of cosmetics such as Sylox, an alternative for talcum.

While the demand for silica gel is still comparatively small, it has reached proportions that have induced the Silica Gel Corporation to build a factory to supplant the small quarters in which it had formerly been made. The new plant, located on the Davison Chemical Company's property at Curtis Bay, Baltimore, is of brick, steel and concrete. It is 300 feet long by 55 feet wide, will have an ultimate capacity of 10,000 pounds per day, and is now turning out 5000 pounds per day.

In cosmetics, such as Sylox, silica gel is used once and thrown away; and for such uses it commands a flat selling price. But the indications are that by far the greater part

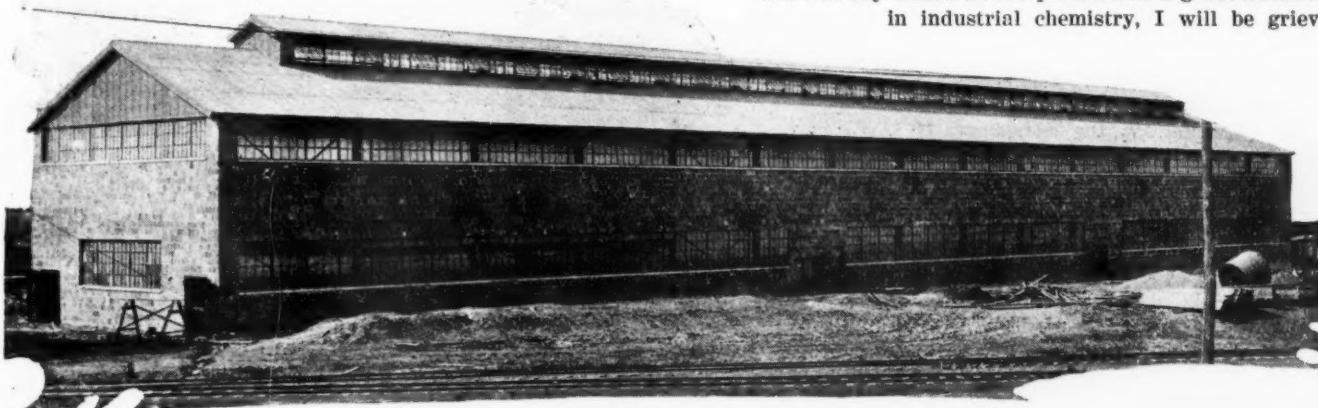
been possible to develop enough men to handle all of the work mapped out and a long list of potential uses for the product awaits commercialization.

Wherever absorbents, such as charcoal, fuller's earth, butane and sulphuric acid find their uses, there, it is believed, is a fertile field for silica gel.

The substance now known as silica gel is not new, but Dr. Walter A. Patrick, of the Johns Hopkins University, was the first man to find a practical application for it. He was the first to make the silica gel molecules stay fixed, and the first to produce them in a practical way. Toward the close of the war he experimented with silica gel in gas masks, and since that time the laboratory development of its uses has been unremittingly pursued by the scientists of the Silica Gel Corporation. Hundreds of patents have been secured in this country and abroad as a result of their demonstrations.

Silica gel has been brought to its present stage of development by a research staff, backed by a management, that refused to acknowledge defeat. For General Electric, General Motors or one of the other great and powerful corporations of the earth to spend \$3,000,000 in a seven-year campaign of research on a single product in the face of severe criticism would be worthy of remark. For the Davison Chemical Company with its much smaller resources and the Davison officers and individual investors who put their time and money into the Silica Gel Corporation along with that of the Davison Chemical Company to carry out so bold a campaign is one of the signal adventures of chemical industry in this country.

If C. Wilbur Miller, his staff and his associates are not one day hailed as the pioneers of a great advance in industrial chemistry, I will be grieved.



THE NEW SILICA GEL MANUFACTURING PLANT, BALTIMORE, MD.

of it will go into uses where its everlasting durability will demand that it be paid for on a royalty, or rental basis, thus gradually building up an ever-larger body of hard-working, income-producing gel.

Out of the many applications for use in the adsorbent field, only the more important of its applications have been carried through to actual commercial use. It has not yet

ously mistaken, for silica gel, in bringing into play the curious force of adsorption, introduces a form of energy which, while long known in the laboratory, is new to industry. The ramifications of its applications, only a few of which I have mentioned, are so numerous as to be past comprehension. Apparently it will go on finding new uses, as electricity is still doing, for many years to come.

Bids Asked on 21-Story New Orleans Building.

New Orleans, La.—The American Bank and Trust Company of this city will receive bids until September 4 for the erection of a 21-story bank and office building at Carondelet and Common streets, for which Moise H. Goldstein, a local architect, has prepared plans and specifications. The structure will be 107 by 106 feet, 315 feet high with three setbacks, of steel frame construction, reinforced concrete foundation on piling, hollow tile and wood floors and composition roof. Five high speed elevators will be installed. The basement will be used for safety boxes and vaults and will be served by a special elevator and an ornamental marble stairway.

\$530,000 Contracts on Port Arthur School.

Port Arthur, Tex.—The following contracts, aggregating more than \$530,000, have been awarded by the Port Arthur Independent School District for the erection of the Thomas Jefferson junior high school:

General construction—Central Contracting Company, Dallas.
Electrical work—Alan T. Cooke & Company, Houston.
Heating and ventilating—Kinnison Brothers, Dallas.
Plumbing—Harry Kahn Plumbing Company, Dallas.

The building will be two stories, fireproof, brick, concrete and terra cotta construction with Spanish tile roof. It will contain a large auditorium, two gymnasiums, cafeteria and other features of a modern school. Mark Lemmon, Dallas, is the architect.

August 16, 1928

Commercial Cotton Crop for 1927-1928.

By COL. HENRY G. HESTER, Secretary, New Orleans Cotton Exchange.*

The Commercial Crop of the United States for the year ending July 31, 1928, amounted to 14,443,934 bales, showing a decrease under the crop of 1926-27 of 4,761,905 bales, under the crop of 1925-26 of 1,170,773 and under the crop of 1924-25 of 254,422.

Material decreases are shown in all three divisions but mainly in the other Gulf States.

The figures in round numbers are Texas under last year 1,205,000 bales; other Gulf States under last year 2,334,000; Atlantic States under last year 1,223,000.

The grade of the crop was one of the best, if not the best, on record, averaging Middling to Strict Middling with a decided leaning to barely Strict Middling and with comparatively little below 7/8ths inch staple. There was an almost utter absence of low grades.

In Texas, Oklahoma, Louisiana, Arkansas and Mississippi, the average was Middling to Strict Middling; in the Memphis district, which embraced handlings from most of the Gulf States, the average was Middling, while in the Carolinas, Georgia, Virginia and Alabama, the range was from Middling to Strict Middling with the leaning towards Middling.

On the face of the figures, it looks as if the season should be regarded as fairly prosperous. The crop of lint cotton averaged in value \$37.56 a bale higher than the monster production of 1926-27 and we received for the 14,444,000 bales marketed (including linters) \$210,000,000 more than we did for the 19,206,000 of the previous year's total. In the final analysis, the advantage, if any was in favor of the producer. Financial results to the trade have generally proven unsatisfactory and, to put it in the words of a leading mill authority, "the entire cotton year has been a poor one for the cotton manufacturing industry." The key-note to the domestic situation is the claim "that with all the effort put forth by the manufacturers and the various associations, it has been impossible to establish cotton goods on a profitable basis."

Whatever the results to buyers and manufacturers, producers not only disposed of all of the year's crop but also 528,000 bales additional from past crops.

In considering values, it must be remembered that most of this year's growth was high-grade cotton, whereas last year the growth averaged Strict Low Middling to Middling, indicating a considerable percentage of low grades much of which sold for almost a song early in the season.

What the absence of low grades this year meant to those who contracted in advance to deliver them, is food for consideration.

Of the exports, which were in round numbers 7,830,000 bales, Germany again led with 2,177,000, a reduction from last year of 776,000; we sent to Great Britain 1,440,000 which was under last year 1,143,000; France took from us 890,000 which was short of last year 123,000; to Italy we exported 696,000 or, say, 94,000 less. Our exports to the Orient were slightly in excess of a round million bales short of last year, of which deficiency 651,000 bales were in the shipments to Japan, 120,000 China and 232,000 to India.

Our exports, which totaled 7,830,000 against 11,244,000, a shortage of 3,414,000, were in fact almost the limit which this country could afford to send abroad from its reduced supply.

The average grade of the crop, as above stated, was Middling to Strict Middling and the average price obtained for

the crop, based on the ten markets designated by the Secretary of Agriculture, was 19.30 cents per pound.

The average price of Middling (which was not the average of the crop) was 19.72, comparing with 12.96 cents last year, 19.88 year before last and 24.27 in 1924-25.

The average commercial value per bale of lint cotton was \$104.29 against \$66.73 last year, \$100.92 year before last and \$124.05 in 1924-25.

The low point was in February, which averaged \$92.47 per bale and the high point in September of \$111.66, the month of the government propaganda, sagging from month to month during which, including September, over 10,800,000 bales, or 70 per cent of the crop was marketed.

The total value of the crop compares with the previous six years as follows:

	Bales	Values
1927-28	14,443,934	\$1,440,514,259
1926-27	19,205,929	1,230,512,367
1925-26	15,614,707	1,550,811,562
1924-25	14,098,356	1,739,593,374
1923-24	11,290,397	1,658,243,040
1922-23	11,282,806	1,388,606,882
1921-22	11,653,133	1,053,181,372

These values which embrace the commercial crop (of lint and linters) only, do not include the value of the seed. Thus the value of the crop for the past year as stated is \$1,440,514,259; if the value of the seed be added, we should have a total of \$1,659,609,259. Last year, the total, including seed, was \$1,440,465,367, and the year before it was \$1,796,824,062.

The actual growth for the season of 1927-28 was approximately as follows:

	Bales	Bales
Commercial crop of 1927-28	14,444,000	
Less old cotton carried over in the interior from previous crops, minus 20,000 destroyed this year by fire		2,103,000
		12,341,000
Plus growth of this year, marketed at ports in July, 1927	9,000	
Plus cotton remaining in interior at close of July, 1928	1,558,000	1,567,000
		13,908,000
Deduct July receipts at ports new cotton, crop of 1928-29	2,000	
Actual growth 1927-28		13,906,000

In the foregoing calculations, the amount carried over in the interior of the Cotton Belt is dealt with, but in view of the importance of the "Carry-over" as a whole, the following details are appended:

COTTON CARRY-OVER JULY 31.

	Bales
Southern mill stocks	This year 631,000 Last year 951,000
Counted interior towns	241,000 248,000
Uncounted towns and plantations	*750,000 \$1,030,000
Total held in Cotton Belt	1,622,000 2,229,000
U. S. Port stocks	†551,000 1,923,000
Northern mill stocks	414,000 553,000
European mill stocks and afloat	735,000 1,835,000
European port stocks	1,393,000 2,093,000
Stocks in interior and in transit outside of the Cotton Belt	120,000 132,000
	4,835,000 6,765,000
Japanese port and mill stocks and afloat	463,000 533,000
Total carry-over	5,298,000 7,298,000
Lint cotton carried over	5,078,000 7,012,000
Linters carried over	220,000 286,000
	5,298,000 7,298,000

*Includes 64,000 new crop of 1928-29 ginned prior to July 31.

†Includes 2000 new cotton of crop of 1928-29 received at ports.

‡Revised by addition of 60,000 to European mill stocks by Mr. Ellison.

§Includes 106,000 new crop of 1927-28.

||Includes 9000 new crop of 1927-28 received at ports.

COMMERCIAL COTTON CROP, BY STATES, BALES.

States	1927-28	1926-27	1925-26	1924-25
Alabama	1,280,000	1,523,000	1,244,000	1,042,000
Arkansas	1,213,000	1,803,000	1,443,000	1,163,000
Florida	21,000	35,000	41,000	21,000
Georgia	1,270,000	1,615,000	1,174,000	1,135,000
Louisiana	595,000	843,000	833,000	513,000
Oklahoma	1,119,000	1,846,000	1,606,000	1,610,000
Mississippi	1,551,000	1,971,000	1,847,000	1,220,000
North Carolina, etc.	*1,023,000	1,407,000	1,138,000	972,000
South Carolina	856,000	1,093,000	910,000	903,000
Tennessee, etc.	823,000	1,172,000	1,133,000	878,000
Texas	4,693,000	5,898,000	4,246,000	5,239,000
Total crop	14,444,000	19,206,000	15,615,000	14,698,000

*Includes Virginia and Kentucky.

†Includes Missouri, California, Arizona, New Mexico, etc.

The story of the American Mills is the reverse of satisfactory. In fact, seldom has a more pessimistic feeling existed among the mills both North and South. In the South for most of the year, a number of mills kept up a speed almost equal to last season's activity and while some cut out night work and others slowed down, yet the season's results show an amount of consumption in excess of any previous year except last year's record total. In fact, never has the five million bale mark been reached except this and last season. Northern Mills have not slackened down to a great extent. The complaint of a large percentage of the mills is that they have not been able to even as much as make a new dollar for an old one. There has been no buyers' strike but the general public, the ultimate consumer, has never been more alert and when it was told officially in September by the United States government that raw cotton was too high and that there was a superabundant supply (even if the crop were short) by reason of an inflated carry-over from the previous season's growth, they were not slow to take heed, slackened purchases in anticipation of cheaper goods. The mills themselves, notwithstanding their organizations it seems, were the last to fully appreciate the situation and are consequently doing penance through generally shorter hours and a complete shutdown of a large number in the South for the first weeks of July and August. In so far as the producer and the trade are concerned, the shutdown could not have happened at a better time of the year; the new crop is late and there is practically no cotton moving so that it can exert no great pressure on farmers or holders. The supply of raw cotton carried over in the interior is smaller than it was at this time year before last and the mills which hold about the same stocks as at the end of July, 1926, are but moderately supplied with the raw material. That they should by shortening time thus contribute towards reducing goods stocks is not unlikely to pave the way towards healthier markets and less unfavorable if not distinctly more favorable margins. There is no gainsaying that present sentiment among many of the most intelligent mill men is pessimistic but it is more than probable that conditions are temporary and not lasting. Like all other business organizations cotton mills cannot be run any considerable period at a loss. The public must have their goods and when it is made to understand that there is no further likelihood of lower goods markets it will not be slow in taking hold. As stated there is at present no pressure by producers to sell as their crops are not ready for market. When they are, if they use the same precautions in selling that are being pursued by the mills in buying, there is no reason to apprehend other than healthy conditions on all sides.

The outlook is not unfavorable even though it may appear so to some whose judgments may ordinarily be relied upon.

This has been one of the years when takings by domestic mills have been less than their consumption. North and South, the mills in addition to takings have used up 459,000 of their last season's stocks.

Reference is made to annexed statement of takings, consumption and stocks, viz:

NORTHERN MILL TAKINGS AND CONSUMPTION OF AMERICAN COTTON (including Linters).

Year Ending July 31—Bales.

	1928	1927
Stocks July 31.....	551,000	455,000
Takings year	*1,840,000	*2,457,000
Consumption, year	2,393,000	2,912,000
Stocks close year.....	414,000	553,000

*Exclusive of foreign cotton and inclusive of California.

SOUTHERN MILL TAKINGS AND CONSUMPTION OF AMERICAN COTTON (Including Linters).

Year Ending July 31—Bales.

	1928	1927
Stocks beginning of year.....	951,000	659,000
Takings for year.....	*4,996,000	*5,763,000
Consumption, year	5,947,000	6,422,000
Stocks close year.....	631,000	951,000

*Exclusive foreign cotton and California consumption.

Consumption of foreign cotton by American mills, North and South show a decrease of 31,000 five hundred pound bales, compared with last year and an increase over year before last of 15,000 bales.

LINTER CONSUMPTION—BALES.

	This year	Last year
North	485,000	537,000
South	265,000	266,000
Total United States.....	750,000	803,000
Foreign	192,000	250,000
Total domestic and foreign.....	942,000	1,053,000

DOMESTIC CONSUMPTION OF ALL KINDS.

	Lint Bales	Linters Bales	Foreign Bales	Total Bales
North*	1,494,000	485,000	230,000	2,209,000
South	5,051,000	265,000	66,000	5,382,000
Total North and South..	6,545,000	750,000	296,000	7,591,000
Total North and South, last year	7,027,000	803,000	327,000	8,157,000

*Includes Pacific Coast and other Western States.

†In 500-pound bales.

The World's Consumption of American cotton was 1,536,000 less than last year and 726,000 over year before last.

Mr. Thomas R. Ellison, of Liverpool, cables me his estimate of mill stocks July 31st, as:

Great Britain 210,000 of all kinds, including 100,000 American; Continent 925,000 of all kinds, including 635,000 American.

Mr. Ellison revised his last year's figures by addition of 60,000 bales to Continental stocks of American.

Importation of foreign cotton during the year (less amount re-exported) amounted to an equivalent of 314,000 five-hundred pound bales, against 371,000 last year and 319,000 the year before.

SUPPLY AND DISTRIBUTION OF AMERICAN COTTON SUPPLY—BALES.

	1927-28	1926-27	1925-26
Visible supply August 1..	3,264,000	2,076,000	1,106,000
Japanese ports, mills and transit	533,000	267,000	224,000
Brought into sight, etc....	14,450,000	19,085,000	16,065,000
Southern mill stocks....	Dec. 320,000	Inc. 292,000	Inc. 239,000
Total supply	17,927,000	21,720,000	17,654,000
Distribution, Bales :			
American mills—North ..	1,840,000	2,457,000	2,261,000
American mills—South ..	4,996,000	5,763,000	5,038,000
Canadian mills, etc.....	235,000	273,000	244,000
Mexican mills	18,000	18,000	48,000
Japanese, Chinese and Indian mills	1,092,000	2,179,000	1,258,000
European mills	7,098,000	7,233,000	6,457,000
Total mill takings.....	15,279,000	17,923,000	15,306,000
Burnt at ports.....	.....	.....	5,000
Visible Supply Close July, Bales :			
In America	792,000	1,171,000	1,058,000
In Great Britain	531,000	1,013,000	569,000
In Continent	862,000	1,080,000	449,000
In Japan	463,000	533,000	267,000
Total distribution	17,927,000	21,720,000	17,654,000

WORLD'S VISIBLE AND INVISIBLE SUPPLY OF AMERICAN COTTON.

	(Close of July.)	1928, Bales	1927, Bales	1926, Bales
Mill stocks in United States close July.....		414,000	553,000	455,000
Mill stocks in Europe close July		735,000	*835,000	670,000
Japanese ports and mill stocks		1,149,000	1,388,000	1,125,000
Visible supply American..		1,612,000	1,921,000	1,392,000
Total visible and invisible supply close July, including Japan		3,797,000	5,185,000	3,468,000

*Revised by Mr. Ellison by addition of 60,000 bales to Continental stocks.

Note—Mill stocks in America embrace only Northern mills; stocks held by Southern mills July 31 are counted in the old cotton left over in the Cotton Belt and are not included in the commercial crop.

WORLD'S CONSUMPTION AMERICAN COTTON—BALES.

	Year Ending July 31.	1927-28	1926-27	1925-26
Visible and invisible beginning year	4,652,000	3,201,000	2,296,000	
Japan stocks and transit... .	533,000	267,000	224,000	
Visible and invisible, including Japan	5,185,000	3,468,000	2,520,000	
In sight year.....	*14,450,000	19,085,000	16,065,000	
	19,635,000	22,553,000	18,585,000	
Visible and invisible close year, including Japan stocks	3,797,000	†5,185,000	3,468,000	
	15,838,000	17,368,000	15,112,000	
Burnt at ports.....			5,000	
World's consumption American cotton	15,838,000	17,368,000	15,112,000	

*Includes 12,000 decrease in transit and 2000 new at ports.

†Revised by addition of 60,000 bales.

CONSUMPTION AMERICAN COTTON BY GEOGRAPHICAL DIVISIONS—BALES.

	1927-28	1926-27	1925-26
United States—North	1,979,000	2,359,000	2,256,000
United States—South	5,316,000	5,471,000	4,779,000
Foreign	8,543,000	9,538,000	8,077,000
Total American for year..	15,838,000	17,368,000	15,112,000

	AMERICAN COTTON CROP. (For Year Ending Close July.)	1927-28	1926-27	1925-26
Port receipts	8,556,783	12,902,055	10,037,603	
Overland to mills.....	1,202,932	1,628,931	1,517,750	
Southern consumption	5,316,168	5,471,391	4,778,926	
	15,075,883	20,002,377	16,334,279	
Less taken by Southern mills from ports	631,949	796,448	719,572	
Total crops	14,443,934	19,205,929	15,614,707	
Exports:				
Great Britain	1,439,771	2,582,638	2,285,585	
France	899,302	1,021,562	916,412	
Continent and Channel*.....	5,256,107	7,366,051	4,805,970	
Canada†	235,228	273,276	244,196	
Total exports	7,830,408	11,243,527	8,252,163	
Stocks close of year.....	551,394	923,420	688,961	
Northern mill takings.....	1,840,414	2,457,436	2,260,914	
Average gross weight of crop per bale—pounds	516.73	514.05	512.14	

*Including to Mexico, Japan and China, details of which are given in Export Table. †Net.

COTTON CONSUMPTION IN THE SOUTH.

(From returns by the mills for the year ending July 31, 1928.)

Notwithstanding the depressed condition of the Industry and the disposition towards pessimism now prevailing amongst mill men, the year's returns show that with the exception of last season, the consumption of cotton in the South has been the largest on record. In a word, both this and last year, for the first time, consumption passed the five million mark, including linters.

	Lint Cotton Bales	Linters Bales	Total Bales
Last year	5,205,000	266,000	5,471,000
This year	5,501,000	265,000	5,316,000
Decrease this year.....	154,000	1,000	155,000

Last year, mill reports almost uniformly read full time,

many night and day; the margin of profits was better, though not wide and on the whole the year had been the most satisfactory since the world war, the season closing with a generally optimistic feeling.

This year public confidence was soon weakened by government prognostications of a lower market for raw material and the existence of a superabundant supply, in face of the reduced crop, by means of an inflated carry-over from the previous season. Southern Mills apparently gave little heed to this although margins began to shrink. In fact, according to returns I have received, most of the mills operated full time, some until January and others up to February, although some of them began to slacken as early as October. The outcome for the season is best demonstrated by the fact that the actual decrease in consumption was confined to 154,000 bales of lint cotton. But few of the mills totally closed for the month of July though consumption for that month was the smallest for the year.

In a word, the mills continued to operate for the most part hoping against hope for the restoration of a profitable basis. There is an underlying sentiment that conditions are likely to improve with the movement of the new crop, which is late, and that the buying public may become convinced that with the bottom reached any change must be for the better.

The takings of American cotton for this year were in round figures 4,996,000 bales compared with 5,763,000 last year, a decrease of 767,000, while consumption (exclusive of foreign cotton) totaled 5,316,000 against 5,471,000 last year and 4,779,000 the year before, a decrease of 155,000 under last year and an increase over 1925-26 of 537,000.

Three new mills with 11,732 spindles were reported in operation and 18 in course of construction with 7966 looms and 256,690 spindles. Additions of 73,440 spindles were also being made to old mills.

Year	Number
1910	11,583,359
1911	11,897,414
1912	12,318,356
1913	12,819,333
1914	13,199,426
1915	13,346,480
1916	13,900,286
1917	14,500,999
1918	14,786,262
1919	15,187,319
1920	15,657,951
1921	15,891,616
1922	16,232,624
1923	16,778,144
1924	17,194,171
1925	17,642,696
1926	17,908,026
1927	18,260,775
1928	18,552,727

ROSTER OF MILLS.

Total number last year.....	1,031
Crossed out and merged into other concerns.....	14
New and uncompleted added to list.....	1,017
	18
Total number cotton mills in the South.....	1,035

SOUTHERN COTTON MILLS IN 1927-1928.

(Number of Mills.)

	Total	In Operation	Old	New	Idle	New, not Completed
Alabama	99	85	..	4	10	
Arkansas	7	4	1	2		
Georgia	172	166	1	5		
Kentucky	5	5	..	..
Louisiana	5	5	..	..
Mississippi	17	15	..	2		
Missouri	2	1	..	1		
North Carolina	440	429	1	9	1	
South Carolina	208	205	..	1	2	
Tennessee	30	27	1	2		
Texas	33	27	..	3	3	
Oklahoma	2	2	..	..
Virginia	15	10	..	4	1	
Total	1035	981	3	32	*19	
Last year	1031	988	6	27	*10	
Year before	1022	966	12	35	*9	

*Including mills commenced this year and those under this head last year not yet completed.

The record of spindles in the South shows:

	This Year Spindles	Last Year Spindles
Total in operation.....	18,129,965	17,791,985
Idle	166,072	160,712
New, not completed.....	256,690	308,078
Grand total	18,552,727	18,260,775

Showing an increase of spindles, active, idle and not complete, over last year, of 291,952, and net gain of spindles at work of 337,980.

The total consumption in all the mills, old and new, for the year, was 5,316,168 bales against 5,471,391 last year, and 4,778,926 for the season of 1925-26, a decrease under last year of 155,223 and an increase over the year before of 537,242.

The average consumption per spindle in the mills in operation has been 6.66 pounds less than last year, and 10.72 more than the year before.

COTTON SPINDLES IN THE SOUTH.

	Total	In Operation		Idle	New, not completed*	127,336
		Old	New			
Alabama	1,778,028	1,644,548	.....	6,144	.....	127,336
Arkansas	59,326	36,576	.....	10,000	.....	12,750
Georgia	3,062,409	3,031,173	4,000	16,188	.....	11,048
Kentucky	84,330	82,050	.....	.....	.....	2,280
Louisiana	100,764	100,764	.....	.....	.....	.....
Mississippi	176,752	175,552	.....	1,200	.....	.....
Missouri	31,364	28,864	.....	2,500	.....	.....
North Carolina	6,109,298	6,044,970	.....	57,368	6,960	.....
South Carolina	5,474,802	5,408,870	.....	4,732	61,200	.....
Tennessee	603,762	587,898	7,732	8,016	.....	116
Texas	318,304	259,796	.....	33,568	25,000	.....
Oklahoma	30,912	30,912	.....	.....	.....	.....
Virginia	722,616	686,260	.....	26,356	10,000	.....
Total.....	18,552,727	18,118,233	11,732	166,072	256,690	.....
Last year	18,260,775	17,736,531	55,454	160,712	308,078	.....
Year before	17,909,026	17,444,448	49,676	244,778	170,124	.....

*Includes spindles being added to old mills as well as those in new concerns.

†Including spindles added to old mills less spindles thrown out during the year and new, not complete mills of last year which started operations this season.

‡Exclusive of 165,033 spindles using foreign cotton, say 2745 in Alabama, 36,170 in Georgia, 82,800 in North Carolina, 41,316 in South Carolina, 2002 in Tennessee.

LOOMS IN SOUTHERN COTTON MILLS.

	Active	Idle	Complete	Total
Alabama	28,610	162	3,940	32,712
Arkansas	377	.....	300	677
Georgia	57,495	.....	256	57,751
Kentucky	1,376	.....	.....	1,376
Louisiana	2,493	.....	.....	2,493
Mississippi	4,824	.....	.....	4,824
Missouri	580	.....	.....	580
North Carolina	83,028	925	30	83,983
South Carolina	128,211	16	2,470	130,697
Tennessee	8,248	.....	70	8,318
Texas	5,711	773	600	7,084
Oklahoma	454	.....	.....	454
Virginia	19,044	336	300	19,680
Total	340,451	2,212	7,966	350,629
Last year	324,742	3,303	5,756	333,501
Year before	328,708	3,606	2,889	335,203

SOUTHERN CONSUMPTION OF AMERICAN COTTON.

(Actual figures reported by the mills for the year ending July 31.)

No.	Mills* Looms†	Spindles†	1928	1927	Bales—
Alabama	85	28,610	1,644,548	561,620	5,471,391
Arkansas	4	377	36,576	17,190	18,291
Georgia	167	57,495	3,035,173	1,170,596	1,185,113
Kentucky	5	1,376	82,050	39,531	38,409
Louisiana	5	2,493	100,764	51,734	48,451
Mississippi	15	4,824	175,552	45,184	39,875
Missouri	1	580	28,864	43,189	64,168
North Carolina	430	83,028	6,044,970	1,591,685	1,679,865
South Carolina	205	128,211	5,408,870	1,227,617	1,258,106
Tennessee	28	8,248	595,630	205,484	185,798
Texas	27	5,711	259,796	152,689	163,975
Oklahoma	2	454	30,912	12,744	9,742
Virginia, etc.	10	19,044	686,260	196,905	192,526
Totals	984	340,451	18,129,965	5,316,168	5,471,391
Less consumed and taken from Southern seaports and included in port receipts.....			631,949	796,448	
Net consumption to be added to crop.....			4,684,219	4,674,943	

*Mills in operation only. For total in South see other table.

†Employed in mills in operation. For total looms and spindles in South see other table.

‡Spindles working American cotton only. For statement foreign see elsewhere.

COTTON CONSUMPTION OF SOUTHERN MILLS IN POUNDS.

The following shows the consumption of American cotton

by Southern Mills during the past two years in pounds of lint cotton and the average net weight per bale:

	Pounds (Lint)		Average	Weights*
	This year	Last year	per bale	per bale
Alabama	274,286,476	286,585,420	488.38	488.16
Arkansas	8,554,140	9,000,176	497.62	492.05
Georgia	561,257,893	570,253,714	479.46	481.18
Kentucky	19,489,098	19,328,828	493.01	503.23
Louisiana	25,026,968	23,019,222	483.76	475.10
Mississippi	21,756,411	18,806,995	481.51	471.65
Missouri	21,124,432	32,288,147	480.12	503.18
North Carolina	762,045,572	804,336,441	478.77	478.81
South Carolina	591,485,076	602,973,567	481.82	479.27
Tennessee, etc.	103,489,834	91,477,207	503.64	492.35
Texas	74,304,674	79,827,058	486.64	486.82
Oklahoma	6,352,410	4,904,777	498.46	503.47
Virginia, etc.	97,059,061	94,111,356	493.43	488.82
Total†	2,566,232,645	2,636,912,908	482.72	481.95

*Not including foreign cotton. †Exclusive of bagging and ties.

Probable 14,291,000 Bale Cotton Crop.

A United States cotton crop of 14,291,000 bales in 1928 is indicated by the condition of 67.9 per cent of normal upon the 46,695,000 acres in cultivation on July 1, as estimated by the Crop Reporting Board of the United States Department of Agriculture. Of course, the final outturn of the crop will depend upon whether the various influences affecting the crop during the remainder of the season are more or less favorable than usual.

Cotton production in 1927 was 12,955,000 bales; in 1926, 17,977,000 bales; in 1925, 16,104,000 bales; in 1924, 13,628,000 bales; and in 1923, 10,140,000 bales.

If the per cent of cotton area abandoned during this season should be equal to the average of the past ten years, the area which would remain to be harvested in the United States this year would be 44,953,000 acres. Upon that acreage the crop of 14,291,000 bales indicated by the August 1 condition would approximate a yield of 152.2 pounds of lint cotton per acre, as compared with 154.5 pounds in 1927; and average for the ten years 1917-1926, 156.3 pounds.

States	Area in cultivation July 1, 1928.	Production (500 lb. gross wt. bales.)	
		1928 Crop. Indicated by	
		Less	1927 Crop. condition
Virginia	82,000	31,000	48,000
North Carolina	1,841,000	861,000	973,000
South Carolina	2,518,000	730,000	897,000
Georgia	3,814,000	1,100,000	1,079,000
Florida	94,000	17,000	19,000
Missouri	370,000	115,000	132,000
Tennessee	1,106,000	359,000	401,000
Alabama	3,409,000	1,191,000	871,000
Mississippi	3,677,000	1,355,000	1,229,000
Louisiana	1,820,000	548,000	568,000
Texas	17,595,000	4,352,000	5,137,000
Oklahoma	4,561,000	1,037,000	1,419,000
Arkansas	3,526,000	1,000,000	1,136,000
New Mexico	99,000	70,000	82,000
Arizona	195,000	91,000	133,000
California	218,000	91,000	157,000
Other	28,000	7,000	10,000
United States	44,953,000	12,955,000	14,291,000
Lower California	160,000	45,000	100,000

\$750,000 Chemistry Building for Alabama Polytechnic Institute.

Auburn, Ala.—Trustees of the Alabama Polytechnic Institute, of which Dr. Bradford Knapp is president, has authorized the purchase of private property in the confines of the campus for the erection of a number of buildings, including a \$750,000 chemistry building to be erected first. Other structures for which plans have been ordered include an auditorium and administration building and a building for textile engineering. The trustees will also install a new radio broadcasting station and will join with the city in the improvement of the sewerage system. Warren, Knight & Davis, Birmingham, are architects for the buildings and Olmsted Brothers of Brookline, Mass., landscape architects.

Louisiana Sugar Staging a Remarkable Development.

By THOMAS EWING DABNEY, New Orleans, La.

From the figures of Lionel Janes, agricultural statistician of the United States Department of Agriculture, and Arthur H. Rosenfeld, consulting technologist of the American Sugar Cane League, it is now possible to forecast a yield of some 3,000,000 tons of sugar cane from 172,000 acres planted to the new and the old varieties. This is on a basis of an average yield of 18 tons to the acre, which is most conservative when it is remembered that the new canes have produced 40 tons and better to the acre, and only 27,000 acres or so are planted to the old varieties, which almost wrecked the sugar parishes of Louisiana.

The feature in this comeback of the Louisiana sugar industry—which centers around New Orleans—is that every revision I have had to make during the past three or four years I have been writing about sugar cane production has been upward. It is not at all improbable that the final count-up will be better than I can indicate now and, from the present showing, it looks as if the 22 sugar parishes of the State will turn out \$21,000,000 of production by the end of the year. What a Thanksgiving period this year will show in the sugar belt of Louisiana!

Consider the cold figures: Janes forecasts a sugar yield of 174,933 tons; Rosenfeld, 175,000. The two highest authorities on this situation, therefore, are only 67 tons apart.

Prices are now low—lower than last year. If the planters receive an average of 4.15 cents for their sugar, it means \$83 a ton, and that means \$14,500,000. Last year's crop, at an average of 4.50 cents a pound, or about \$90 a ton, brought less than \$7,000,000. The sugar alone, therefore, is turning out twice as many dollars in Louisiana this year as last, and there are not many investments that lay over that record.

This year's molasses production should total 20,000,000 gallons, which at six cents, mean \$1,250,000 more. And this year's syrup should bring \$5,000,000 to \$6,000,000—a total of about \$21,000,000 for 1928, with Christmas not so far off!

The stand of cane in Louisiana is the finest that any of the old-timers can remember. Cane well over six feet in height—in July; so thick that one hardly can fight his way through it; and this cane is of a demonstrated heavy production in sugar. The production estimates are made on the basis of 135 pounds of sugar to the ton of cane, and the sugar yield has proved itself considerably heavier than this.

Profits? One can get a rough idea of what sugar means to the planters of cane by the following figures: The Federal Intermediate Credit Bank loaned the planters an average of \$32.40 an acre to plant and make their crop. If sugar continues at the present low price, the planters will receive from the mills \$4.15 a ton for their cane—call it \$4. At an average production of 18 tons of cane to the acre, the total money yield, therefore, will be \$72 a ton. Overhead expenses will hardly average more than \$5 an acre. Add this to the production expenses, and the cost of making the crop is under \$40. Leaving a profit of \$30 or so.

The mills have always made a profit when there was enough cane to keep the rollers turning. They will make a profit this year. The terrible losses in the sugar belt of Louisiana have been borne by the fields—the planters and the small farmers. Of course, the failing production caused many mills to close down. Some have been closed down for such a long time that it will be a wonder if they can ever be made to work again.

Up to this year the big trouble in the sugar belt was a shortage of cane. Next year we will begin to suffer from a shortage of sugar mills. For, it is conservative to fore-

cast a planting of 300,000 acres to sugar cane next year. That is double this year's crop, and the production may be more than double that of 1928. In other words, the sugar output of this State in 1929 should be in the neighborhood of 275,000 to 300,000 tons.

From 1894 to 1914, Louisiana produced an average of 250,000 tons of sugar a year—great days for the industry. Next year it will beat that. And, during the earlier period there were twice as many sugar houses, measured in grinding capacity, as there are now. So, it is obvious that there has got to be a lot of figuring done with engineers and machinery houses if the 1929 cane crop is to be ground. By the year after next, it is not improbable that Louisiana's sugar crop will be coining \$50,000,000 a season, and still be going strong. It will almost reach this total next year.

The profits will be heavier in the future than they have been in the past. With a 30 per cent. smaller acreage, Louisiana is now making more sugar than the average of the past eight years. Translated into farm economics, this means that the planters are making the crop at a smaller cost for seed, fertilizer, mule power and man power. And this more than takes up the slack of the lower prices for sugar.

A close student of the industry, a planter of much success, says that within five years the sugar output of Louisiana and Florida—which also is doing wonderfully well—will be 1,500,000 tons a year. No wonder Northern capital is investing in sugar lands of the South. No wonder there is great cheer in the sugar parishes of Louisiana today. No wonder the “great houses” up and down the Lafourche, the Terrebonne and the Teche, and in other parts of the sugar country, are preparing for a merry Christmas this year.

50,000 Horsepower Development Projected.

Charleston, W. Va.—The West Virginia Public Service Commission is considering an application of the New Kanawha Power Company, Glen Ferris, W. Va., said to be a subsidiary of the Union Carbide and Carbon Company, New York, for authority to build two dams, two tunnels and two hydro-electric plants to develop 50,000 horsepower near Hawk's Nest and Gauley Junction. Plans call for the construction of the first dam about one-fourth of a mile above Blue Hole tunnel on New River and a new tunnel through the mountain for a distance of 3000 feet to a point upstream from Gauley Junction where a hydro-electric plant would be built. The second dam would be constructed four-fifths of a mile downstream from Hawk's Nest and a 3900-foot tunnel bored through the mountain to a point where the second hydroelectric plant would be located. The tunnels, to be concrete-lined, would have a combined fall of 147 feet. Approximately 810,000,000 gallons of water would be impounded at Gauley Junction and 1,300,000,000 gallons at Hawk's Nest.

Contracts for 6,440,000 Cubic Yards Levee.

The Mississippi River Commission, Major John C. H. Lee, United States Engineer, Vicksburg, Miss., has awarded contracts to the following for 6,440,000 cubic yards of levee construction in the Third District, for which bids were opened July 2: T. W. Roach, Memphis, Tenn.; R. T. Clarke Company, Inc., John W. Noble and William C. Mullen, Natchez, Miss.; Brown-Dennison Contracting Company, Memphis; Wooten & Perry, Vicksburg; H. B. Blanks, Angola, La.; Thompson and Moseley, Tampa, Fla.; Sternberg Company, Inc., and Rodgers Brothers and Company, Inc., St. Louis.

New Agricultural Era for Western North Carolina.

By LEONORA W. WOOD, Black Mountain, N. C.

The western section of North Carolina, which includes 20 mountain counties, has taken on a forward look. The Farmers' Federation, headed by James G. K. McClure, Jr., is proving to the most skeptical that the farm industry can be completely revolutionized by the co-operation of business men, farmers and farm specialist.

The farm problems of this section were serious. With climatic and soil conditions well adapted to fruit growing and cattle and poultry raising, the lack of markets where produce could be disposed of, and plants where the over-supply could be taken care of, have made farming a trying, discouraging occupation. But, the State can boast of many far-sighted business men—men who think in terms of "service."

The Farmers' Federation, after making a careful survey and systematic study of the agricultural problems, became convinced that the only way by which the agricultural possibilities of this section could be realized was by a carefully planned educational program combined with the establishing of plants and warehouses sufficient to take care of the produce. Such a program called for a financial backing involving thousands of dollars.

Mr. McClure and H. W. Love, two of the leading spirits of the Federation, felt confident that there were financiers in New York who would participate in a movement that would benefit such a broad section of the country, with the many worthy farmers, farm boys and girls, who could be given a new view of agricultural life. They went to New York fully alive to the importance of their mission—and came back with \$100,000, which has been contributed for the development of this mountain section. To this amount, the late E. W. Grove added \$25,000. Others caught the spirit of service and the fund has continued to grow until it has reached the mark of \$250,000.

The Federation, which has been in existence seven years, has already gone with its educational activities into every nook and corner of the mountain counties. Agricultural agents of the 20 counties had formed boards; together with county commissioners and two leading farmers from each township, they had established a sympathetic understanding between the farmers and the Federation. The problems, needs and possibilities of the particular counties and individual farmers had been studied. Economic conditions had hitherto been the most serious obstacle in the carrying out of their program. But, with the stimulus of such financial backing, the Federation planned a five-year campaign, and this now is well under way.

It is estimated that poultry, which had brought into the mountain counties about \$3,000,000 a year, could be made to produce \$75,000,000, and poultry fattening and egg collecting stations have been installed. Thousands of thoroughbred chickens have been placed on the farms. Thoroughbred cattle, sheep and hogs are taking the place of scrub stock. Proper spraying and pruning of fruit trees is being taught, and the growing of vegetables and small grains encouraged.

Every farmer has the advice of an expert on crop rotation and the working out of his particular problems. Many farmers already are making more clear profit on one acre of land than they previously had made on their whole farm. The problem of marketing is being solved by warehouses which have been installed at strategic points, by farm bureau clubs and commodity organizations. Sixteen trucks are kept busy, making transportation of produce sure.

Well built, hard-surface roads are taking the place of mud-pikes. Consolidated schools, as well equipped as any in the

State, give educational advantages to the youth of the farms. Lights and water with all kinds of labor-saving devices are being installed in the homes. Telephones and radios are connecting them with the outside world, doing much to take away the monotony of farm life. Community churches provide religious training and furnish wholesome recreation for the young folks. Four-H clubs, under the supervision of wise leaders, are doing all kinds of attractive things, and at the same time discovering and developing future farmers and farmers' wives.

Western North Carolina, has, under the influence of this broad, co-operative program, made marvelous progress, not only along agricultural lines, but on educational and cultural as well. Thousands of people are attracted to this section by the magnificent scenery, pure air and water; and the aggressive farmers of the mountain counties are preparing to take care of their own, as well as the tourist population, in a way that would have been unthought of 10 years ago.

And, surely, no agricultural section offers greater opportunities for lovers of the soil than western North Carolina.

Growers Seek 50 Per Cent Increase in Tariff on Peanuts.

Peanut growers in Virginia and Carolina have appealed to the Tariff Commission for a 50 per cent increase in the duty on peanuts. Importations from the Orient are offering competition with the domestic product which growers say cannot be produced under America's high standard of living in competition with the cheap labor of China.

In 1927 the peanut production of the United States, and that means the South, was 866,822,000 pounds valued at \$35,193,000. During the calendar year 1927, importations of foreign peanuts and by-products amounted to 4,490,000 pounds of unshelled nuts, 38,804,731 pounds of shelled nuts and 2,847,424 pounds of peanut oil. In other words an equivalent of more than 70,000,000 pounds of unshelled peanuts from abroad came into direct competition with one of the South's principal crops. These cheap foreign peanuts were a constant threat to American growers for they can be grown and shipped to this country at a cost below that at which they can be produced here, and an adequate tariff is necessary to save this great Southern crop.

Corporation to Aid Louisiana Truck Growers.

Baton Rouge, La.—Directors of the East Baton Rouge Parish Credit Corporation, a new organization projected here to aid truck growers in this section to finance their crops, have elected W. L. Ward, vice-president of the Bank of Baton Rouge, president; E. G. Davis of the Louisiana National Bank, first vice-president; A. McB. Jackson, of the Union Bank and Trust Company, second vice-president, and William Drew, East Baton Rouge farmer, secretary. The corporation is capitalized at \$15,000 and on this capital will be able to borrow \$75,000, it is stated, from intermediate credit banks.

Bids Invited on Army Barracks.

Fort Bragg, N. C.—Bids will be opened September 6 by the Constructing Quartermaster here, Capt. Lawrence L. Simpson, for erecting one 2-unit barrack for regimental headquarters and service battery of the 17th field artillery and one 3-unit barrack for the 135 mm. howitzer battalion, 17th field artillery.

\$400,000 Bank and Office Building.

The Hamilton Trust & Savings Bank of Chattanooga, Tenn., has recently awarded contract to John Parks of that city, for the erection of a new bank and office building to involve an expenditure of about \$400,000. The structure will be four stories and basement, including mezzanine, of reinforced concrete construction with a concrete slab basement, granite base and exterior walls of terra cotta and face brick. Stone



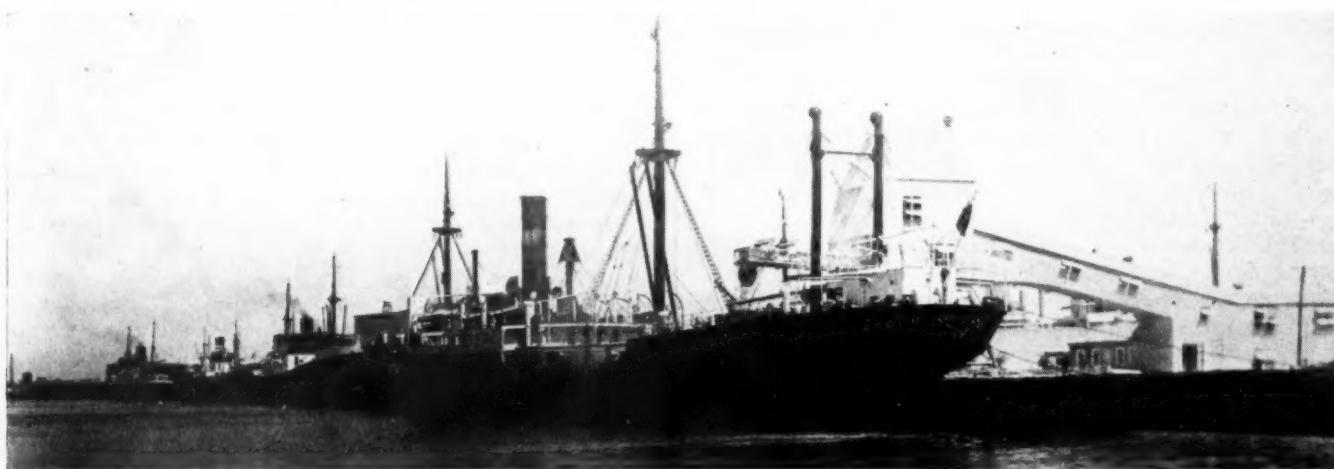
HAMILTON TRUST & SAVINGS BANK, CHATTANOOGA.

and terra cotta with Corinthian pilasters will be used as a major treatment of the exterior. Banking room walls will be of California stucco plaster with Travertine finish and will be equipped with up-to-date facilities, including semi-cageless fixtures. Modern lighting fixtures will be installed, while a system of fans and ducts will provide ventilation. Two passenger elevators, an electric coin lift, and sidewalk elevators will be installed. Metal cages will have side emergency exits and flush lock drop annunciators.

Contract for plumbing and heating was awarded to John Cuneo Plumbing Co., Chattanooga, and for electrical work to the Atlanta branch of the Howard P. Foley Co. of Washington, D. C. The R. H. Hunt Company, Chattanooga, is architect; C. M. Preston, vice-president of the bank, is chairman of the building committee.

Huge Sulphur Cargo Loaded at Galveston, Tex.

The steamer, Anglo-Colombian, recently sailed from Galveston, Tex., with a cargo of 10,050 tons of sulphur, said to be the biggest sulphur cargo ever loaded. The shipment, which was destined for Australia, contained over 200 carloads of sulphur, mined at Gulf, Tex., by the Texas Gulf Sulphur Company. The sulphur is placed on cars at Gulf by mechanical devices, transported to Galveston, and is loaded on boats by special conveyors. Over 1,000,000 tons of sulphur is handled annually through the Port of Galveston.



TEXAS GULF SULPHUR CO. LOADING WORLD'S RECORD SULPHUR CARGO AT GALVESTON, TEXAS.

\$350,000 Hotel Completed at Midland, Texas.

The Scharbauer Hotel, erected at Midland, Tex., for Mr. and Mrs. Clarence Scharbauer at a cost of approximately \$350,000, including furnishings and equipment, has recently been opened. The structure is 100 by 140 feet, six stories, full basement and roof garden, of reinforced concrete, with cement, tile, terrazzo and maple floors, and built-up composition roof. It contains about 150 rooms and has been designed in what is described as a modern adaptation of the Classic, with details in the Adams style blended with French Renaissance.

The first floor provides space for lobby, coffee shop, kitchen, pantries, lockers, washrooms, checkrooms and other facilities, while the mezzanine or second floor contains spacious lounges,



MIDLAND'S NEW HOTEL.

writing room and beauty parlor. Two passenger elevators serve all floors and two enclosed stairs, one at each end of the building, have been so constructed as to serve as fire escapes.

The David S. Castle Company, Abilene, Tex., is the architect and engineer, and Robert E. McKee of El Paso, general contractor.

Jass Manufacturing Company to Build Addition.

Charlotte, N. C.—The Jass Manufacturing Company, producers of textile novelties, announces plans for constructing a second unit to its mills here. Construction is in progress on a building to contain 40,000 square feet of floor space, to be completed by January 1, and work on a second unit will be started soon. The buildings will cost approximately \$125,000 and equipment \$100,000. The company operates mills in Philadelphia and Atlanta.

Letters From Our Readers

The MANUFACTURERS RECORD is being swamped with letters in regard to the political situation. Some are letters of bitter criticism; most of them are letters of strong commendation of the position taken by this paper. From time to time, as space permits, we will publish these letters regardless of whether they are letters of commendation or criticism.

These letters must not discuss the political question from the religious standpoint.

A South Carolina-Florida Democrat Protests Against the Political Machine Effort to Enslave the South's Right to Think.

Editor Manufacturers Record:

St. Petersburg, Fla., Aug. 2.

Some days ago the feature front page article of my morning paper carried this headline: "Will require three million to elect Smith."

As the days go by it becomes more and more evident that in addition to this comparatively insignificant sum set by the Republican chairman of the Democratic national committee, there is a sum being exacted from the South which cannot be designated by the dollar mark. For most of our political leaders and many more would-be political bosses who see Alfred E. Smith's left leg astride the donkey and who, though admitting that it does not fit, have accepted this shadow for the substance of Democracy and are demanding that we follow them and it, blindly. As instanced by the Shelby, N. C., outburst, they parrot the convention key-noter in very fine oratorical declamations about a "spotless record" and about Alfred E. Smith "gleaming across the political heavens as a star of the first magnitude!" They do not seem to have sensed that the rank and file of Democrats have exercised the intelligence, which they seem to have neglected, to walk around the animal, there to find the strong right Smith leg fitting snugly as it has grown around and under the belly of the Tammany tiger. And certainly not within my memory of more than half a century, and so far as I know not within the history of this Republic, has there been so vicious an assault upon the individual conscience as is being waged in the South today. I speak only of the South because herein is anchored my birthright, and herein shall I claim my heritage.

For four years every student of current politics, apparently except our national Democratic leaders, has seen what Editor William Allen White terms the "Tammanyization" of all the great cities from coast to coast and some lesser ones. But not until catastrophe was upon us did our trusted Southern leaders make a futile gesture to avert it. They knew that Tammany was laying its plans to capture the machinery of the Democratic party, and had they made the same determined effort to defeat those plans that some of them are now making to complete party degradation, the Democratic party and the national government might have been saved the most serious threat since the day of their founding. Our party leaders knew that, except in name, Tammany was not Democratic, and except in geographical location, it is not American. They knew that Tammany has polled many thousands of illegal alien votes in every national election during the past third of a century to help defeat the Democratic nominee and to kill the votes of American citizens, particularly ours of the South. They knew, because it is a matter of criminal court record, that Tammany has fed upon vice and crime and grown powerful upon the sale of protected privilege. They knew that Alfred E. Smith was the child of Tammany, trained in its school of politics and nurtured upon the substance of its bosom. They knew, because it is a matter of house-journal records, that every vote he cast upon social questions in the state assembly of New York was cast in the interest of those institutions that prosper upon the degeneration of men and women and the poverty of little children. They

knew, with the record of Tammany graft in the city of New York before them, that no greater menace could threaten the business of government or the perpetuity of Democracy than a Tammany picked president and a Tammany picked cabinet in the national capitol. They were blinded to none of the history of Governor Smith nor of Tammany Hall which has handed him to the Democratic party as its leader. Now they know that, though accepting the nomination, he has bolted the party platform to reassert his adherence to the Tammany program. And they know that his appointment of a Republican chairman of the Democratic national committee, no less than the language of that individual in denouncing the party platform, is an insult to every Southern Democrat.

And today the South is confronted with a problem we have never faced before. With a few exceptions, our political leaders are attempting to deceive the rank and file, to abuse, to coerce—to set up over us the Tammany Boss System. They insult our intelligence by refusing to give truthful information about the issue before us and they assault our constitutional rights by denying us the liberty of individual conscience. Though for months some of them have decried "intolerance," in their efforts to crush that which they cannot command they respect neither the character nor the faith of men. An ex-governor for whom I once voted (of which I repent) is quoted as defining the opposition to Smith as "organized hypocrisy." An Asheville editor who, himself deceived or who has tried to deceive his readers by repeated assertions that Governor Smith "stands for the enforcement of national and state prohibition laws," is quoted as telling a Georgia audience that those who oppose the election of Smith, in effect, aid and abet "negro domination in the South." A Southern jurist is quoted as speaking from an Atlanta hospital and raising the same issue; of branding as "traitorous to the South" loyal Democrats who seek to defeat an enemy that flouts the principles and platform of Democracy. And he brands as "misguided zealots" those who elect to think their own thoughts. News reports from the city of Greenville, S. C., indicate that the Tammany Boss System is well organized there. Political over-lords are reported to be considering, if not having adopted, the sleuthing method upon their fellows; as in Red Russia, they would spy upon and record the names of men and women who vote against or who speak disloyally of Alfred E. Smith!

But the most costly contribution to the Smith-Tammany campaign that has been made or that can be made is the effort to kill men's faith in their spiritual leaders. One South Carolina editor who is not unfamiliar with the labors of Dr. Barton and Bishop Cannon for social betterment and who, apparently for no other purpose than to poison the public mind, charges that they "would rather grind an earthly adversary to powder than to engage in any other ministerial service." Another writer described as a "prominent Methodist layman" ridicules and abuses "the bishops" of the Methodist Church, although as such, they offered no word about the political crisis confronting us. Had he waited a few days he would not have been so inclusive, but apparently assuming from their record of devotion to human rights and divine service what their position would be, he bunches them together, and in violation of every gentleman's code of honor and perjuring his vows before the altar of his church, he attempts to besmirch them and their office with the denunciation—"little popes." I repeat, whatever the medium, this underworld propaganda for the purpose of destroying respect for and faith in those men who join us in the sacred marriage bond, who visit us in sickness and discouragements, who bury our dead and who preach the gospel that saves the souls and bodies of men—this is infinitely the most costly contribution to the Smith-Tammany campaign that has or can be made.

While with the knowledge of the facts which I have rehearsed I cannot understand the operation of their minds, I will not assert that some of our political leaders who are urging us to support Mr. Smith are insincere; though I do think they should not have been "asleep at the switch" so late. The indications are, however, that more of them have their eyes fixed upon a Tammany appointment and that they are a little more than willing to ride to it on our backs. They would have us march shoulder to shoulder with that pitiable East-Side that neither knows nor cares for American laws or social order; they would have our mothers, our wives, our sons and daughters catch step with wet Republicans white and black, with gamblers, with bootleggers and

bar-keepers, with the underworld of whatever name. And because we would save the Democratic party by defeating Tammany, the enemy that has knifed it in the back in every national election for a third of a century; because we display average intelligence, have a political conscience and the courage to defend it, they would spy upon us, they denounce us as "misguided zealots," they brand us "traitors to the South," they cast upon us that false and foul stigma of aiders and abettors of "negro domination!" And they would poison our minds against our most faithful friends. If not to the same degree, they are assaulting the liberty of the individual conscience as surely as did intolerant Rome when those little bands of Christian martyrs were given their choice between renouncing their faith and having their quivering flesh thrust deep and thick with burning fagots.

I love the South, I reverence its traditions; that is why I write these lines. Sometime, just when doesn't matter, that part of me that has given and received hard blows for the principles I believed to be right will go back and give its all to the red soil of South Carolina. And I am sure my sleep shall be sweeter there to know that my faith in the South was not misplaced. For I do not believe the South will break faith with itself; that it will join hands with the enemies of social justice to destroy a work of its own hands and the consummation of its prayers. I do not believe the South will take orders from Tammany Hall.

L. D. CHILDS.

Detroit's "Grand Old Patriot" Now Over 85 Years Old an Ardent Fighter for Prohibition—A Strong Indictment of Liquor Traffic.

Henry M. Leland.

Detroit, July 31.

Editor Manufacturers Record:

On page 46 of your issue of June 28 is an article purporting to be extracts from a speech from Dr. John A. Lapp, of Milwaukee, in which he quotes from the late Governor Hanley of Indiana his reasons given with some detail for hating the liquor traffic.

I have made it my business for more than seventy years to watch this traffic carefully and in detail, and I must say that, terrible as it is, Governor Hanley's indictment against this great scourge on the American home, on American youth and womanhood, was justified because the statements which he made are true to life in every instance.

Therefore, I want to thank you again for your interest and courage in stripping this traffic of the halo which the so-called lovers of "personal liberty" would endow it with, and for exposing it in its hellish nakedness to the view of mothers, the homemakers, and the honest men and women of America, so that when they are marking their ballots next November they will hesitate just long enough to think whether they want, by their vote, to help to put into the White House, once presided over by a Lincoln and a McKinley, a man so indifferent to the welfare of the youth of America, of its homes and its mothers, as to have been a *life-long advocate* of this accursed traffic.

I am writing you, Mr. Edmonds, to ask permission to publish this article by Dr. Lapp, and to scatter it among the women's clubs of Michigan.

Again, I want to thank you for your ever ready pen which is always ready to defend the great principles of Americanism, and a true and noble Patriotism.

HENRY M. LELAND.

It is needless to say that Mr. Leland has full permission to republish the article mentioned which is as follows:

"I beg to read to you the words of one of the greatest leaders in the movement for Prohibition, the late Frank Hanley, former Governor of Indiana. The indictment by this wholesome leader took the form of specific reasons for hating the liquor business. Here they are:

"I bear no malice toward those engaged in the liquor business, but I hate the traffic.

"I hate its every phase.

"I hate it for its arrogance.

"I hate it for its commercialism; for its greed and avarice; for its sordid love of gain at any price.

"I hate it for its domination of politics; for its corrupting influence in civic affairs; for its incessant effort to de-

bauch the suffrage of the country; for the cowards it makes of public men.

"I hate it for its utter disregard of law; for its ruthless trampling of the solemn compacts of State constitutions.

"I hate it for the load it straps to labor's back; for the palsied hands it gives to toil; for its wounds to genius; for the tragedies of its might-have-beens.

"I hate it for the human wrecks it has caused.

"I hate it for the almshouses it peoples; for the prisons it fills; for the insanity it begets; for its countless graves in potter's fields.

"I hate it for the mental ruin it imposes upon its victims; for its spiritual blight; for its moral degradation.

"I hate it for the crimes it commits; for the homes it destroys; for the hearts it breaks.

"I hate it for the malice it plants in the hearts of men; for its poison, for its bitterness, for the Dead Sea fruit with which it starves their souls.

"I hate it for the grief it causes womanhood—the scalding tears, the hopes deferred, the strangled aspirations, its burden of want and care.

"I hate it for its heartless cruelty to the aged, the infirm, and the helpless; for the shadow it throws upon the lives of children; for its monstrous injustice to blameless little ones.

"I hate it as Abraham Lincoln hated slavery, and as he sometimes saw in prophetic vision the end of slavery, and the coming of the time when the sun should shine and the rain should fall upon no slave in the Republic, so I sometimes seem to see the end of this unholy traffic, the coming of the time when, if it does not wholly cease to be, it shall find no safe habitation anywhere beneath Old Glory's stainless stars."

"This is the business that we are asked to condone. It is this for which men are urged to break their oath of office; it is for this that the fundamental charter of America is to be breached; it is this which we are asked to support in its combat to undermine and destroy the Constitution; it is for this that people are to be encouraged in their sneers at the Constitution. This life and soul-destroying, conscience-breaking, lawless business we are asked to support in preference to the fundamental charter of the Republic. It shall not be. The liquor business has deserved all of the condemnation that has been expressed in torrents of righteous words and all of the repressions and prohibitions that have been placed upon it by statutes and constitutions. It doubly deserves them now, when outlawry has been solemnly expressed upon it. After a hundred years of fruitless effort to regulate the infamous conduct of the liquor traffic the people rose, and in one mighty effort, by the vote of 46 of the 48 States, placed their final seal of condemnation on it by enacting the Eighteenth Amendment."

Wherein Has the Republican Party Throttled the South—Is Not This Section Developing More Rapidly Than Ever Before?

Dungan Brothers.

Elizabethton, Tenn., July 25.

Editor Manufacturers Record:

I write to refer to the tirade of abuse you printed on the front page of your July 5 issue against Al Smith.

How can you even suggest that the South vote anything but the Democratic ticket, regardless of who the candidate is or how he stands on prohibition, when you stop to consider the past record of the Republican party on the following questions:

1. The oil scandals.
2. The Muscle Shoals disgrace.
3. The sale of Federal appointments in the South.

Leaving out every moral and religious question, and religion has no business in politics, the deliberate throttling of the South's development by the Republican party is worthy of the contempt of every decent thinking man and woman in the United States, and I am surprised that a magazine that claims to be a Southern magazine would recommend to the voters that they support Mr. Hoover. You know very well that Mr. Coolidge does not regard the South as a part of the United States, and the only thing that enables us to get ahead at all is the fact that our resources are unparalleled. We have no promise that Mr. Hoover's knowledge of geography is any better than that of Mr. Coolidge. I would rather vote for an honest man such as Al Smith is than to vote for any man the Republicans might be willing to offer. I think you owe your readers in the South an apology.

S. W. DUNGAN.

IRON, STEEL AND METAL MARKET

Record Steel Output—Scrap Prices Rise—Condition Moderate in Consuming Lines.

Pittsburgh, August 13—[Special.]—The steel industry did a remarkable thing, producing steel at a 6 per cent higher rate in July than in June, when the regular thing has been a seasonal decrease. The increase brought about by far the highest July production ever made. A curious thing was that substantially all the increase was on the part of independent companies. The Steel Corporation was reported during the month to have a slightly lower operating rate than in June, which resulted in general estimates that the whole steel industry decreased. The official report for July showed 3,811,573 gross tons of Bessemer and open-hearth ingots produced in the month, which with 25 working days made a daily rate of 152,463 tons, representing 80.88 per cent of capacity, against 76.37 per cent in June and an average of 84.31 per cent for the half year.

Production was heavier in the latter than in the fore part of July, and the higher rate is fully maintained now, nearly if not quite 85 per cent. In the year to date production has run 5.4 per cent above last year.

Along the line that the recent increase in steel production was unexpected is the remarkable bulge in prices in the scrap market, which has been highly excited in the last few days. Around July 1, there were large sales of heavy melting steel scrap to the Pittsburgh district mills at the new low price of \$14 while early last week \$14.50 was paid by one mill which later in the week would have been glad to buy at \$15.25. The Pennsylvania Railroad monthly scrap list went at \$15.50 to \$16 and the Baltimore & Ohio list at \$15.50, Steel Corporation subsidiaries taking the scrap in both cases. At the beginning of last week the Detroit scrap market was reported dull while on Wednesday sales were made at sharp advances, for water shipment to Buffalo, at prices above the Pittsburgh market considering the \$4 freight the scrap would have to pay. Dealers have the short orders just mentioned at \$14, and older orders at higher figures. They have paid \$15 and higher to cover and would hardly sell even at \$16. Already a prediction of \$18 scrap is made, which would be the highest in two years.

Conditions in the steel consuming lines are simply moderately good, showing nothing particularly remarkable as to tonnage, and it is evident that the record heavy production of steel, i. e., record high for the time of year and record high as the cumulative total since January 1, is due to there being uniformly heavy demand in nearly all lines, and particularly perhaps in the miscellaneous and smaller lines which cannot be studied in detail. Only the structural fabricating shops and the agricultural implement factories have been running at distinctly higher rates than in other years.

The Steel Corporation's unfilled obligations, after making the unusual showing of an increase of 220,187 tons in June, decreased by 66,082 tons in July, making the net showing of the two months quite favorable, as between them these two months showed only a small increase last year, and a decrease the year before.

Pipe mills continue to have a very light demand for casing and other oil and gas well material. Recently there was a great deal of line pipe buying, and more is reported in the last week, but no small part of this line pipe business is in electrically welded pipe, made by the A. O. Smith Corporation, Milwaukee, so that while the steel industry gets the tonnage the pipe mills do not get the finishing part of it. The Youngstown Sheet & Tube Company has booked an order for about 300 miles of 14-inch pipe, about 25,000 tons, involving some \$2,000,000 from the Midwest Gas Company, to pipe

natural gas from the Amarillo field, Texas, as far as Enid, Okla., the line eventually to run farther. The Texas Company has ordered 450 miles of 24-inch electrically welded pipe, about 100,000 tons, for a natural gas line.

Steel prices continue to show a firming up tendency. The advance in bars, shapes and plates from 1.85c to 1.90c, Pittsburgh, is not complete, but still seems to be making progress. Sheets and strips are a little stiffer. Sheet mills intend to make an advance for fourth quarter but must first line up prices to 2.65c for black and 3.50c for galvanized which lately have been the theoretical rather than the actual market. Wire mills have formulated a plan to rearrange business, cutting out the special preferentials to the largest jobbers and throwing more small trade to jobbers in general.

Pig Iron Melters Maintaining Confidence—Steel Market Unchanged.

Birmingham, Ala., August 13—[Special.]—While the policy on the part of melters of buying pig iron in small lots and giving instructions for early delivery is more or less confusing as to the status of the market, the furnace interests are filling orders promptly, continuing production and above all maintaining confidence. The base price is \$15.50 per ton, No. 2 foundry and there has been intimation that when the change does come on it will be for the better. No formal announcement is yet made as to buying into the fourth quarter of the year. There is no doubt but that there will be need for pig iron into that period, most likely to a greater tonnage than has been required this quarter. Survey shows that the larger melters of iron, the cast iron pressure pipe makers are pushing the production and delivering steadily. There will be a better winter production than last year. The price base of pressure pipe is also firm, holding at \$34 to \$35 per ton on six-inch and over sizes. In the radiator shop there is no indication that production is to be curtailed any in the near future.

Other melters of pig iron, even stove foundries, intimate that there is yet much production to be looked forward to during the remainder of the year, so that the need for foundry iron may retain an activity. Seventeen blast furnaces are still making iron, nine of them on foundry, though not the larger furnaces. Six furnaces are on basic, all big iron makers. Two smaller furnaces are producing special brand iron, including ferro-manganese. Wonderful progress is being made in the development direction, the two blast furnaces being rebuilt nearing completion rapidly, to be ready for the torch by early September, the sister-furnace of the big, new blast furnace of the Tennessee Coal, Iron & Railroad Company at Fairfield, now ready for the torch, to be started up when there shall be warrant for more basic, while two furnaces being relined will be ready within a few weeks to resume operation. Two other furnaces still are in such shape as to be taken in hand and whipped into shape for iron making within a month. The Gulf States Steel Company and the Sloss-Sheffield Steel & Iron Company both are working on the rebuilding of blast furnaces. In each instance, the furnace will be capable of 500 tons of iron per day and will eliminate a great portion of the waste, an expensive waste of the present day.

The steel market is but little unchanged, the greater exception to general conditions of the past several weeks being as to rail production. The demand for this product has fallen off greatly, not sufficient business prevailing to warrant active production. There is a fairly good demand for plate, sheet, structure, lighter shapes and railroad appurtenances, cotton ties, etc. Quite a little tonnage of cotton ties has been moved

so far from this district this season and there will be good shipments through the next 30 days, despite the fact that reports are to the effect that the cotton crop will not be so heavy this year. Fabricating shops of the district have a number of local contracts and are keeping quite busy. The Birmingham district is furnishing many tanks for oil storage, both oil from the earth and cottonseed oil. Many of the new industries of the State and adjoining States are placing contracts for structural material and the same is being fabricated and delivered promptly. The larger number of open hearth furnaces of the district are being kept in steady operation.

Wire and wire products, including nail and fencing, are in good demand, though better conditions have been seen.

The coal market shows but little improvement. One or two of the larger producers report a better tone in the market but the output at coal mines on the whole, according to car loadings is far from being encouraging. For the first half of the year of 1928 it is estimated there was a falling off of 1,000,000 tons as compared to the production for the same period of 1927. The annual output of 1927 was under that of 1926. The larger consumers of coal, the railroads, are not asking for steady deliveries.

The coke market is unchanged for the week, all by-product works being in operation but not being pushed for output. In other words, the works are making haste slowly. Foundry coke is being shipped to other centers still but the tonnages are depressed.

The scrap iron and steel market is quiet, with heavy melting steel still around \$10.25 to \$10.50 per ton. No. 1 cast and stove plate with heavy melting steel have been the popular items on the scrap list for some time. Scrap dealers are watching the pig iron market as their barometer.

Quotations for pig iron and iron and steel scrap in the Birmingham district are as follows:

PIG-IRON.	
Old steel axles	\$15.00 to \$15.50
Old iron axles	15.00 to 15.50
Old steel rails	11.50 to 12.50
Heavy melting steel	10.25 to 10.50
No. 1 cast	13.00 to 13.50
Stove plate	12.00 to 12.50
No. 1 railroad wrought	9.50 to 10.50
Old car wheels	12.00 to 12.50
Old tramcar wheels	12.50 to 13.00
Machiné-shop turnings	8.00 to 9.00
Cast-iron borings	8.00 to 9.00
Cast-iron borings (chem.)	13.00 to 13.50

The Metal Market.

New York, August 13—[Special].—It was just another summer week among the non-ferrous metals. Fall buying has scarcely begun and will be slow in getting started because of the propensity of consumers to purchase only prompt needs. Moreover, prices show no great leanings one way or the other and hence consumers are not being rushed into the market to anticipate future developments.

For the most part prices are the same as a week ago. Lead was dipped a bit below the 6c, East St. Louis, price, selling in some cases at 5.97½c per pound, but the New York price continues firm at 6.20c. Prompt antimony is a little higher at 10½c per pound, duty paid. Though antimony supplies in China are large, the imports into this country have been small for several months. This large reserve in the Far East should prevent our prices from soaring much further.

Zinc prices are stronger, the more common quotation now being 6.25c per pound, East St. Louis, whereas a week ago it was possible to buy considerable at 6.20c. The new weekly statistical service among members of the American Zinc Institute is said to have been responsible for the firmer market tone. In other words, the figures have revealed that consumers are poorly covered on future needs. Producers have,

therefore, acquired more confidence which was the same result experienced after the formation of the Copper Institute.

A little more interest has been displayed in copper during the past week. It is estimated that one-third of the September melt of copper has been placed under contract. The export price of copper at 15c c. l. f. European ports has been unchanged since May 25. Purchases for export so far this month have averaged 1200 tons daily.

So tight is the supply of copper that frequently the red metal has to be cooled artificially—say with water—to expedite shipments and make deliveries on schedule. Shipments of copper in July are believed to have been equal to production.

Sales of standard copper at London have been increasing. Wednesday's sales were the largest for some time totaling 1000 tons. Copper authorities are at a loss to explain the continued decline in standard copper on the London Metal Exchange, which has brought about an increase in the spread between standard and electrolytic in the last two months.

The impression prevails among operators here, representing London interests and otherwise, that the decline in standard has created a condition favorable to purchases rather than sales, and the expectation is that some buying of moment will develop in the near future which will bring about a narrower spread between standard and electrolytic, especially as it is believed that there is small room for a decline in electrolytic because of the well controlled situation at home and abroad.

The good condition of copper metal has placed copper shares in the favor of the investing public. The Anaconda Copper Mining Co. has raised its annual dividend from \$3 to \$4 per share; the Cerro de Pasco Copper Corporation raised from \$4 to \$5 per share and it is felt in Wall Street circles that the Kennecott Copper Co. will advance its annual dividend to \$6 per share. The price of copper has been over 14c per pound, delivered to the Connecticut Valley, during the first half of this year, as against under 13c during the corresponding half of last year.

Tin prices hold around 48c per pound, spot tin commanding a fancy premium over futures. Spot tin is very scarce and promises to be so for a considerable time since only 3100 tons of the tin afloat will reach this country in time to make August delivery. The first day of the week was dull because of the bank holiday at London. The next day matters livened up considerably, 400 tons having sold at Singapore alone, reflecting the very large supplies there.

Makers of lead-covered cables have been the best customers in lead. Sales of lead for the first seven months of the year have been larger than for the corresponding period of last year. The New York price of lead is unchanged at 6.20c per pound, though concessions of 2½ points have been made from the official East St. Louis price. Despite the fact that Mexican lead threatens the Eastern markets, it is now the Middle Western lead market which most lacks strength.

Decreased Pig Iron and Ferro-Alloys Production.

Figures on the production of pig iron and ferro-alloys in the United States in the first half of this year, as given in a bulletin from the American Iron and Steel Institute, show pig iron to have been 18,312,341 gross tons, of which 2,191,093 tons came from Maryland, Virginia, Alabama, Texas, West Virginia, Kentucky, Mississippi and Tennessee. In the first half of 1927, the production was 19,202,070 gross tons. The half yearly production of all kinds of ferro-alloys was 374,071 gross tons, of which 29,407 were produced in Virginia, West Virginia, Tennessee and Alabama. Production of bessemer and low-phosphorus pig iron was 4,457,754 gross tons, a drop of 500,000 tons from the same period in 1927.

GOOD ROADS AND STREETS

SALVAGE VALUE OF OLD PAVEMENTS HELPS KEEP DOWN ROAD COSTS.

Resurfacing Possible on Certain Types Effects Big Savings in Rebuilding.

By E. E. DUFFY.

The wisdom of constructing roads of long lasting materials with a high salvage value was recently brought to light by the New York State Highway Department which saved 77 per cent of the original cost of an old thin, concrete pavement, 14 feet wide, laid in Seneca county 14 years ago. The stress of modern traffic made it necessary to widen this pavement to 18 feet and to thicken the strip from 4½ to 9 inches. By placing the new concrete over the old nearly 2000 cubic yards of concrete were saved. At a cost of \$13.71 per cubic yard the total saving amounted to \$26,800, or approximately 77 per cent of the original cost of the thin and narrow concrete.

Highway authorities point out that when roadways have a salvage value such as this it is all the more imperative that paving programs be extended so that maintenance costs and car costs will be cut to rock bottom. This Fulton-Oswego road lost but 23 per cent of its value in 14 years.

Another striking instance of the high salvage value of good pavements is found in Wayne County, Mich., near Detroit. Gratiot Road was designed before the era of heavy traffic; when the increase came, this highway deteriorated so that resurfacing was necessary. Accordingly in 1917 a four-inch layer of concrete was placed over the old surface. All depressions and deep holes in the old pavement were filled with this new concrete and an even surface was obtained.

Resurfacing completed, the pavement was then widened to 20 feet by constructing a two-foot wide shoulder on each side. Later traffic became so heavy that another ten-foot strip of concrete was added. The success of the whole project may be visualized when it is considered that this 30-foot pavement now carries approximately 20,000 motor vehicles daily.

The problem of resurfacing affects practically every community blessed with old pavements not especially designed for modern travel. True economy today exists in taking advantage of these old pavements as stable bases for resurfacing, in extending needed new pavements over earth thoroughfares.

Three Alabama Bridges Planned.

Montgomery, Ala.—Contract is expected to be awarded in October by the State Highway Commission for the construction of the proposed bridge across the Tennessee River at Whitesburg, plans calling for a seven-span concrete structure. The navigation span will be the third from the left bank of the river and will have a horizontal clearance of 300 feet and a vertical clearance of 81 feet above extreme low water and 40 feet above extreme high water. Similar bridges will be constructed at Guntersville and Scottsboro.

To Open New Highway Between Richmond and Sea.

Richmond, Va.—The Virginia State Chamber of Commerce announces that the short highway route between Richmond and the sea will be formally opened on August 24. This highway extends from Richmond to Portsmouth, Norfolk and Virginia Beach, via Hopewell and Drivers, and shortens the route to Norfolk to approximately 90 miles. It traverses the new Hopewell bridge which has been constructed by the community and presented to the State, and will also use two toll

bridges. Governor Byrd and party, including Henry G. Shirley, state highway commissioner, will dedicate the Hopewell bridge about 9:30 o'clock in the morning, arrangements for which are being made by Roy C. Baden and a committee of Hopewell citizens. From Hopewell the party will go to Smithfield for lunch and then to the Nansemond River, where the second bridge will be dedicated. It will then go to Portsmouth and dedicate a bridge across the Elizabeth River, between Portsmouth and Norfolk.

Knoxville Approves \$3,000,000 Bonds.

Knoxville, Tenn.—At a recent election in Knox County, citizens of Knoxville approved the issuance of \$1,000,000 of bonds for the construction of a new bridge across the Tennessee River and \$2,000,000 for sewer extensions. Work on both projects is expected to be started before the end of the year. The bridge is to be completed within two years, while the sewer system is expected to be finished within 18 months. The bridge is designed to carry traffic between sections of the city on either side of the river and relieve congestion on the present structure. Several designs for a concrete arch structure have already been submitted by bridge builders and others will probably be requested.

\$1,000,000 Bonds Sold to Begin Road Program.

Kansas City, Mo.—Jackson County Court, Harry S. Truman, presiding judge, has sold \$1,000,000 of bonds of a \$6,500,000 issue for the construction of roads and bridges, the purchaser being the Prescott, Wright, Snider Company, Kansas City, at \$967,115. Construction will begin as soon as funds from the bonds are available. Tentative plans as outlined by Col. E. M. Stayton and N. T. Veatch, Jr., consulting engineers, call for building 18-foot concrete highways.

Kentucky Asks Bids on 26 Miles Roads.

Frankfort, Ky.—Proposals will be opened August 31 by the State Highway Commission for the construction of five road projects entailing the surfacing of more than 26 miles. The work will consist of 5.4 miles in Barren County; 9.4 miles in Grayson County, 7.7 miles in Hardin County, 3.6 miles in Madison County and 829 lineal feet in Carter County.

\$420,000 Surface Treatment Contract.

Greenville, S. C.—The Greenville County Highway Commission awarded contract at \$420,249, to the Carolina Road Surfacing Company, Greenville, for top soiling and double-surface treating 106 miles of county roads. Dalton & Neves, Greenville, are the engineers.

Knoxville, Tenn., O. T. Roehl, city manager, will probably offer for sale within the next 30 days an issue of \$650,000 street improvement bonds, making the second issue to be sold this year.

Bids will be received until August 28 by the City Commission of Birmingham, Ala., for the purchase of \$210,000 4½ per cent public improvement bonds.

Cooke County Commissioners are considering calling an election on a bond issue of \$2,000,000 for the construction of a new system of highways.

The Board of Commissioners of Anderson County, Harold Zeigler, clerk, Anderson, S. C., receives bids until August 13 for the purchase of \$484,000 highway bonds to bear 4¾ per cent interest.

Advocates Taxing Highway Signs.

Following the recent decision of the Supreme Court of Kansas upholding the validity of the statute enacted by the Legislature of that State, prohibiting signs, except official road markers on the rights of way of highways, also any type of advertising sign within 500 feet of a turn in the road, crossing, or railroad grade crossing, a correspondent suggests a plan for taxing billboards and signs along public highways. He writes:

"Recently I convinced one of our State Senators on a new form of taxation, whereby the bulk of the money raised will come from outside of the State. The proposed tax is on those boardings that disfigure the landscape everywhere. The line of argument runs somewhat this way. Of the five senses with which we are endowed, legislation protects hearing, smell, taste and touch but not eyesight. We are not allowed to make noises which disturb our neighbor; if our business produces bad odors, we must carry on where there are no noses to be offended. No one may offer for sale food which offends the palate, because that is the symptom of putridity. If we roughen a road enough to hurt tender feet we hear about it and have to smooth things again, and so on. But when it comes to offending the eyesight, any irresponsible can disfigure the finest landscape and get away with it."

"A man who advertises in a public print pays over and above the actual cost and reasonable profit to the publisher, a fee in proportion to the circulation. I would, therefore, make the billboard advertiser pay a tax according to the number of readers that see his outrage on the landscape."

The suggestion is a novel one and offers a possible new source of revenue to the State, but what we are trying to do is to get away from all the disfiguring, obstructing signs along the highways, and the only way to do that is to ban them. The State Highway Board of Georgia has recently prohibited the placing of advertising signs along public highways in its effort to encourage the preservation of the natural beauty of Georgia's scenery and the abolishment of all unsightly objects. Likewise New England has long had laws along some similar lines.

Contract for First Unit of \$4,000,000 Rayon Plant.

General contract for the first group of buildings of the \$4,000,000 rayon mill to be erected at Rome, Ga., for the American Chatillon Corporation, New York, has been awarded to the Hughes-Foulkrod Company, Philadelphia, Pa., and construction will begin immediately. This contract covers the erection of a cotton storehouse, two chemical buildings, power house, machine shop, filter plant, a large one-story shed building for producing acetate yarn, installation of outside sewers and a drainage system. The buildings included in this group will embrace half the floor space of the entire plant and plans for other buildings will soon be completed. Construction will be of reinforced concrete, brick and steel, with concrete and maple floors and built-up roofs. Engineering work is being handled by the Lockwood Greene Engineers, Inc., New York.

\$1,250,000 Contract on \$10,000,000 Rayon Plant.

General contract for the main and auxiliary buildings for the \$10,000,000 rayon plant to be erected at Covington, Va., by the Industrial Rayon Corporation, Cleveland, Ohio, has been awarded to the Fiske-Carter Construction Company, Greenville, S. C., at approximately \$1,250,000. Contract for steel work has been awarded to the Virginia Bridge and Iron Company, Roanoke. Construction will start at once and is expected to be completed within nine months. The proposed buildings include a storage warehouse, 5-story mass preparation building, main manufacturing plant and a power plant, the total constructed area to approximate 350,000 square feet. J. E. Sirrine & Company, Greenville, S. C., are the engineers.

TEXTILE

Completing Alabama Mills Company's Units.

The Batson-Cook Company, Inc., West Point, Ga., general contractor for the erection of 10 cotton mill units in various communities of Alabama for the Alabama Mills Company, Birmingham, advises that the total construction program is about 65 per cent complete. Three units are ready for machinery, three additional ones are expected to be ready for machinery prior to September 1 and the remaining four by the last week in September. Five mill villages have been completed and are now ready for occupancy and the remaining five villages will be ready in September. Major sub-contracts on the job have been awarded as follows:

Plumbing—L. J. Lehotay, Opelika, Ala.; Barry Plumbing Company, Talladega, Ala.; C. R. Maddox, Jasper, Ala., and O'Reilly & Morris Plumbing Company, Russellville, Ala.

Roofing—Baker Roofing Company, Philip Carey Company, O. A. Smith Company and the Georgia Roofing Supply Company, all of Atlanta.

Steel sash—David Lupton's Sons Company and Applewhite & Lawler Company (Fenestra), both of Atlanta.

Caldwell & Company, Nashville, Tenn., interested in financing the project, reports machinery for the mills has been purchased and that several carloads have been shipped from the East.

Robert & Company, Inc., of Atlanta, are the engineers.

Contract for Loom Manufacturing Plant.

Spartanburg, S. C.—General contract for the erection here of the plant of the Standard Looms, Inc., Isaac Andrews, president, has been awarded to the Fiske-Carter Construction Company, Spartanburg. The new plant, to manufacture looms and complementary machinery, will consist of a foundry, 350 by 110 feet, of steel frame construction and metal-clad roof; manufacturing and assembling building, 440 by 142 feet, consisting of pattern shop, machine and carpentry shops and assembling room, of steel frame, brick walls, wood floors and tar and gravel roof, and smaller structures for blacksmith shop, pattern storage, small parts storage, boiler plant and dry kilns. Lockwood, Greene & Company, Inc., Charlotte, N. C., are the engineers.

\$2,500,000 Cotton Mill for Dyersburg, Tenn.

A new cotton mill development projected for Dyersburg, Tenn., will be known as the Dyersburg Cotton Products Company and its investment in mill and equipment will be about \$2,500,000. The mill building, to contain approximately 275,000 square feet of floor space, will house some 20,000 spinning spindles, 1000 knitting machines and a complete dye and bleach house. Plans for the mill have been prepared by Robert & Company, Inc., architects and engineers, of Atlanta, and will be released for estimates August 18. Contract will be awarded August 30 in the office of the engineers. The building is expected to be completed before January 1.

Steel Contract for Southern Brighton Mills.

A. K. Adams & Company, Atlanta, general contractors for the erection of three warehouses and an addition to the main mill unit of the Southern Brighton Mills at Shannon, Ga., have let contract for structural steel to the Ingalls Iron Works Company, Birmingham. J. E. Sirrine & Company, Greenville, S. C., are the engineers.

Wants Data on Textile Mill and Industry.

T. E. Carpenter, general contractor of Weslaco, Texas, wants complete data on the textile industry, including the financing, building and equipping of a small cotton mill to manufacture one or more standard weaves.

NEW AND IMPROVED EQUIPMENT

Back Digger's Unusual Work.

An unusual way of digging a basement has been successfully accomplished by Trifiletti Bros., Lorain, Ohio, with a Thew Lorain "75" back digger. For the erection of a new building, it was necessary to remove 5000 cubic yards of hard blue clay at various depths from street level, and also to wreck and remove the old brick and stone foundations of a former structure on the site.

With the tip-and-tilt dipper, all perpendicular walls were dug without the necessity of any hand work. At one period, the back digger stood on an intermediate level 11 feet above the depth to which it was digging and loaded the material into trucks on a bank nine feet above the level. The dipper was spotted directly over the trucks and being under control of the operator, was tilted to unload in that position without spilling any of the earth around the trucks. In tearing out



THEW LORAIN "BACK-DIGGER" ON THE JOB.

the old foundation walls, the dipper was held with teeth vertical, two or three feet above the back of the wall. By releasing the hoist brake the weight of the boom sank the teeth well down over the foundation, which gave way under the powerful pull of the dipper dragline.

When the work was completed, the back digger having finished digging and loading on the same level with the trucks, did not have to be removed from the basement.

Analysis of Welded Piping.

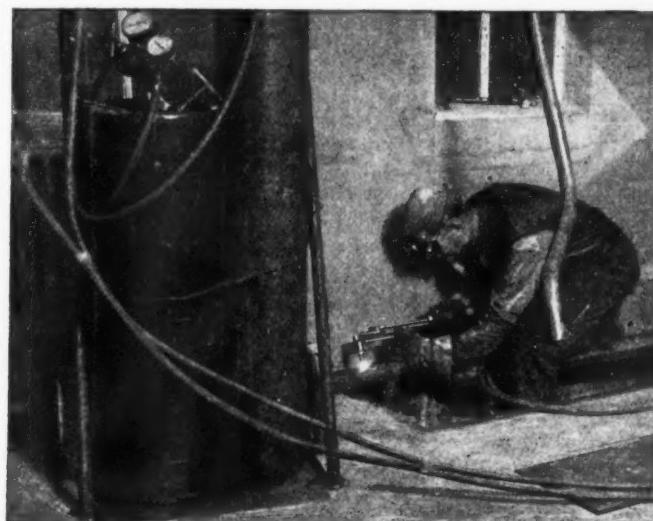
An analysis of welded piping systems installed in 15 typical plants and shops is given by the Linde Air Products Company, New York, Chicago and St. Louis, with an explanation that the lines represented in the summary cover various types of service: Low and high pressure steam; cold and hot water, both raw and treated; compressed air, and fuel oil. One air line oxwelded in 1914 is said not to have required maintenance from the time of installation until the shop burned in 1926, and an oxwelded 4-inch steam line 845 feet long has been in operation since December, 1921, without any maintenance charge to date.

According to the company, an installation of 875 feet of 16-inch O. D. steel pipe in a concrete tunnel required 43

oxy-acetylene welded joints and 20 standard rolled steel flanges used adjacent to valves and expansion joints. The actual cost was \$3,058.69, or \$1300 less than another estimate.

The analysis presented is as follows:

Size of Pipe, inches	Total Length, feet	Size of Pipe, inches	Total Length, feet
1	1,320	4	5,560
1 1/4	2,200	5	816
1 1/2	1,650	6	9,680
2	4,923	8	1,760
2 1/2	2,820	14	300
3	4,854		
			Total 35,901



BRANCH CONNECTIONS ARE MADE WITH A MINIMUM LOSS OF TIME.

Unusual Test on Bridges.

The American Rolling Mill Company has inaugurated the practice of supplying the open hearth furnaces of its Middletown, Ohio, plant with molten metal from blast furnaces located at Hamilton, Ohio, more than 10 miles away. This required railroad equipment of a new and heavier type, including ladle cars, and a record for railroad wheel loads was established. The cars are approximately 56 feet long, with four axles at each end, and when loaded with molten iron weigh 685,000 pounds or 342.5 tons. Each wheel transmits a concentrated load of 42,800 pounds; the loads are "the heaviest railroad wheel loads on record," the company says. On this branch railroad line are steel bridges on concrete piers and a number of Armeo corrugated iron culverts, the largest of the latter being a 72-inch culvert with a protective earth cover of only four feet.



ARMEO CULVERT SUBJECT DAILY TO WHEEL LOADS OF 42,800 POUNDS.



"BLUE BOY" HOIST.

Direct Differential Hoist.

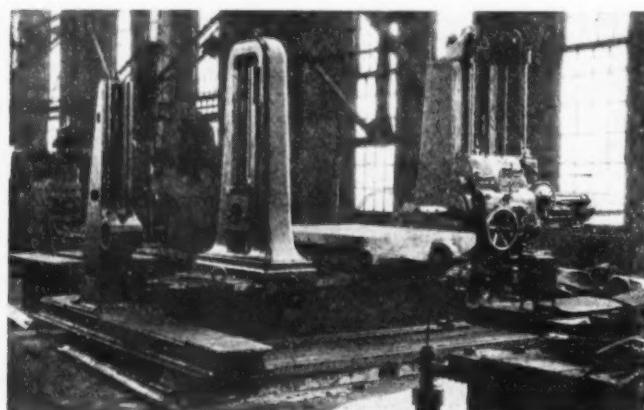
A new direct differential hoist, "Blue Boy," is being manufactured by the Chisholm-Moore Hoist Corporation, Cleveland, Ohio. It is described as a most efficient hoist, equipped with the well-known Hercules Inswell electric welded load chain giving it a high degree of safety. The extra heavy load sheaves, malleable iron yokes and drop-forged hook are painted blue; the Inswell chain is copper plated; thus the new "Blue Boy" has an unusually attractive appearance.

A new catalog insert section, describing the "Blue Boy" and other hoists in the Chisholm-Moore line, has been published and is ready for distribution.

Machine Solves Drilling Problem.

To meet the problem of milling or boring small pieces, as well as machining very large and bulky jobs, the Canadian Bridge Company of Walkersville, Ont., Canada, has obtained a special machine developed by Joseph T. Ryerson & Son, Inc., which is a combination of two machines. It is a standard floor-type horizontal boring and milling machine, having a spindle saddle with vertical movement on its column; a column with a horizontal movement on its runway; a bed plate fastened to the runway, and an outer boring bar support, which has a hand movement on the bed plate parallel with the spindle travel.

It is direct motor driven, and all speeds, feeds and power traverse to spindle, spindle-head and column are controlled



COMBINATION BORING AND MILLING MACHINE.

from the head. The outer boring bar support, as well as the main post, is fitted with vernier and scales reading to one thousandth of an inch. A special, self-contained portable table, used when machining small pieces, is mounted on the bed plate and can be removed when the machine is used for large work. The table has movements in two directions, parallel with the spindle travel and parallel with the column travel. It is operated by hand, but is so arranged that an electric motor can be supplied giving the table milling feeds and rapid traverse.

Universal Crane on Subway Work.

In connection with the construction of the Broad Street subway in Philadelphia it has been necessary to deck over the entire street, and the various steel girders, etc., being handled by Universal cranes, varying from $2\frac{1}{2}$ ton to 7 ton, are dropped down through small openings and lowered into place by using a system of snatch blocks and pulleys under-



HANDLING STEEL GIRDER.

neath. This is indicated in the accompanying illustration. According to the Universal Crane Company, Cleveland, Ohio, manufacturers of the cranes, one of the units is owned by Scott Bros. and two others by Heyman & Goodman. Both of the latter are mounted on $7\frac{1}{2}$ ton capacity Mack trucks and are $7\frac{1}{2}$ ton capacity cranes equipped with 28 foot booms.

New Device to Facilitate Rural Electrification.

The General Electric Company reports the development of a device, called a series capacitor, that is expected to greatly facilitate the electrification of farms. Thomas A. Edison Bell, one of the engineers connected with the invention, is quoted as having said:

"The series capacitor, in effect, allows us to use alternating current and yet to impart to the transmission of electric power the approximate characteristics of direct current. It has always been preferable to transmit with alternating current because of the simplicity of obtaining high voltage, thus permitting conductors of relatively small diameter for the transmission line. Certain technical complications of transmission, however, not met with in using direct current, remained a limiting factor. It is these difficulties which the series capacitor removes, so that we can combine the transmission advantages of both alternating current and direct current, although the current that we send is still alternating."

"A transmission line which heretofore stopped short of sparsely settled suburbs or farming districts, because of the unwarranted cost of taking electricity to a small number of scattered consumers, can now be extended to reach those places at only a slightly greater cost. The hindrance in electrifying farms thus far has centered in one item, the cost of distributing the current. The series capacitor largely overcomes this drawback."

Negotiations are said to be under way for the installation of the device on several rural lines.

CONSTRUCTION DEPARTMENT

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained.

The date at the end of an item indicates issue of the Manufacturers Record in which earlier facts about the same enterprise were published.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$30.00 a year.

Airports, Airplane Plants, Etc.

Mo., Kansas City—City voted \$1,000,000 bonds for municipal airport. See Financial News. 7-19

Mo., Kansas City—Inland Air Industries Corp., incorporated; M. W. Borders, Jr., 630 W. 60th Terrace.

Mo., St. Louis—City voted \$2,000,000 bonds for airport.

Tenn., Chattanooga—City plans voting on bonds for airport. See Financial News.

Tex., Amarillo—Amarillo Airport Corp., capital \$15,000, incorporated; Harold W. English, 1211-A Lincoln St.

Bridges, Culverts and Viaducts

Proposed Construction

Ark., Fayetteville—Washington County, H. L. Baker, Judge, plans receiving bids soon for 2 bridges: 90-ft. steel truss span, over Illinois River, near Bolen Smith ford, 16-ft. roadway, 15-ft. vertical clearance; also 30-ft. span over branch, both supported by winged cone abutments, 23 ft. high; over creek at Cincinnati, west of Fayetteville, two 40-ft. spans, on two-winged cone abutments; central cone pier, all 13 ft. high; 16-ft. roadway; all 15-ton capacity. 8-9

Ala., Huntsville—State Bridge Corp., Montgomery, plans 7-span bridge over Tennessee River at Whitesburg Ferry; navigation span third one from left bank, with 300-ft. horizontal clearance and 8-ft. vertical clearance above extreme low, and 40-ft. above extreme high water.

Arkansas—State Highway Comm. receives bids for 3 bridges. See Roads, Streets, Paving.

Florida—State Drainage Bd. granted permit to Florida East Coast R. R., L. C. Frohman, Prin. Asst. Engr., St. Augustine, and Atlantic Coast Line R. R. Co., J. E. Willoughby, Ch. Engr., Wilmington, N. C., to build bridges and secure rights of way over several streams near Lake Okeechobee.

Ga., Augusta—City considering expending \$13,890 for conc. bridge over first level of Augusta Canal, Thirteenth St.

Ky., Carrollton—State Highway Comm., Frankfort, contemplate constructing bridge across Ohio River.

Ky., Louisville—State Highway Comm., Frankfort, approved general plans for Louisville and Jeffersontown approaches to municipal bridge under construction, over Ohio River, by Louisville Bridge Comm., Wm. Black, Chmn., Todd Bldg.; American Bridge Co., Frick Bldg., Pittsburgh, Pa., has contract. 7-26

Md., Cumberland—City Council receives bids Aug. 23 for conc. arch and deck type Market St. Bridge over tracks of Western Maryland Ry., replace steel structure; Ralph L. Rizer, City Engr. 7-12

Miss., Port Gibson—Claiborne County Bd. of Supvrs., W. L. Allen, Clk., receives bids Sept. 3 for Cable Bridge over Widows Creek.

Missouri—State Highway Comm., Jefferson City, Missouri-Pacific R. R. Co., E. A. Hadley, Ch. Engr., St. Louis, and Missouri-Kansas-Texas Lines, F. Ringer, Ch. Engr., St. Louis, plan rein. conc. overhead railroad crossing, Highway 40, Cooper County, over tracks of M.-K.-T., \$16,000; replace wooden structure, west of Boonville; grade separation of U. S. Highway 71, in Carthage, at intersection with Mo.-Pa. tracks, \$15,000; replace wooden structure.

North Carolina—State Highway Comm. received low bids for 2 overhead ridges and

overhead crossing. See Roads, Streets, Paving.

North Carolina—State Highway Comm., Raleigh, received low bids for structures on two roads. See Roads, Streets and Paving. 7-19

South Carolina—State Highway Comm. receives bids for 3 bridges, 2 culverts. See Roads, Streets, Paving.

Tenn., Kingston—Maj. Lewis H. Watkins, U. S. Engr. in charge of Tennessee River survey, will hold public hearing Sept. 5 on application of State Highway Dept., Nashville, for bridge across Tennessee River, Roane County; 3-span, through truss bridge, pier supported, conc. girder approaches; navigation span over center of stream, with 358-ft. horizontal clearance, normal to current, 76-ft. vertical clearance above extreme low and 32 ft. above extreme high water.

Tex., Anderson—Grimes County, Oscar A. Seward, Jr., Navasota, County Engr., plans bridge and approaches on Highway No. 6 across Navasota River between Grimes and Brazos Counties; 1 160-ft. steel truss span, 12 26 ft. 6 in. rein. conc. girder approach spans, earth fill approaches; estimated cost \$90,000.

Tex., Dallas—See Roads, Streets, Paving.

Tex., Galveston—See Roads, Streets, Paving.

Tex., San Antonio—City, Fred Fries, Clk., receives bids Aug. 27 for rein. conc. San Antonio River bridge on Grayson St. extension, \$30,000.

Tex., San Antonio—City, C. M. Chambers, Mayor, considering 4 bridges: Across river, connecting Carey Ave. and Hildebrandt St. at north edge of Breckenridge Park; improve both streets; conc. Josephine St. Bridge, and street widening; replace present wooden structure; conc. bridge across San Pedro Creek connecting West Poplar St. with Castro St.; across San Antonio River, Grayson to Gertwood St.; extend street; I. Ewig, City Engr.

Tex., San Antonio—City, Fred Fries, Clk., received low bid from Summer-Sollitt Co., Natl. Bank of Commerce Bldg., \$7315, for 2 conc. abutment walls for underpass under Missouri Pacific Lines, I. G. N. R. R. on Contour Drive.

Tex., Townbluff—State Highway Comm., Austin, appropriated \$6000 to remove two steel bridge spans from White Creek, Trinity County, to be reconstructed over Neches River, Townbluff, Highway 45, between Tyler and Jasper Counties.

W. Va., Hinton—See Roads, Streets, Paving.

W. Va., Huntington—Cabell County Court, Irvin Morrison, Pres., receives bids Aug. 31 for 3 bridges: 29-ft. steel span; six 20-ft. spans, steel viaduct; 64-ft. span through truss; J. M. Oliver, County Road Engr.

Contracts Awarded

Alabama—State Highway Comm. let contracts for 6 bridges. See Roads, Streets, Paving.

Ala., Clanton—See Roads, Streets, Paving.

Ark., Bates—Kansas City Southern Ry. Co., A. N. Reece, Ch. Engr., Kansas City, let contract to A. P. Ellis to rebuild culverts on branch of line at Bates.

Fla., Sarasota—City let contract to J. W. Crawford, First Bk. & Tr. Bldg., \$11,780, for Hanson Bayou Bridge.

Ga., Lumber City—Southern Ry., B. Herman, Ch. Engr., Washington, let contract to Virginia Bridge and Iron Co., Roanoke, Va., for 550 tons steel shapes for bridge at Lumber City.

Ky., Ashland—Ashland Bridge Co., Thomas Boggs, Pres., let contract to Mott Core Drilling Co., R. & P. Bldg., Huntington, W. Va., for borings, for Ohio River Bridge between Ashland and Coal Grove, Ohio; expect to have plans completed by Sept. 1. 8-2

Miss., Gulfport—Harrison County Bd. of Supvrs. let contract to B. A. Desporte, Billeux for Popp's Ferry Bridge at \$6397.24.

Miss., Port Gibson—Claiborne County Bd. of Supvrs., W. L. Allen, Clk., let contract to Kirby Williams Steel Co., Jackson, Tenn., \$5100 for steel and conc. bridges over Choctaw and Commissioners Creeks. 7-19

S. C., Anderson—Anderson County, W. H. Shearer, Supvr., let contract for rein. conc. bridge across Saluda River, Holliday's Dam, connecting Greenville and Anderson Counties to R. M. Michum, Augusta, Ga., at \$22,463.17. 7-26

Tex., Brady—McCowan & Ward, Stephensville, have contract, \$21,166, for 250-ft., 24-ft. conc. bridge across Brady Creek, Highway 9, in Brady; 7 piers, 6 girders. 6-14

Tex., Kemah—General Construction Co., 408 Pine St., St. Louis, has contract at \$39,000 for Kemah-Seabrook highway bridge bridge over Clear Creek.

W. Va., Charleston—Charleston County Court, R. N. Moulton, Clk., let contracts for 4 bridge superstructures: Humphries two 40 ft. steel I-beam spans over Wills Creek, E. B. Mills, Covington, Ky., \$2647; Slaughter Creek 80 ft. span steel pony truss on Chelyan road, Fairmont Mining and Machinery Co., Tenth St. and Belt Line, Fairmont, \$5264; Lens Creek 90 ft. span steel pony truss on Chelyan road at Marmet, Fairmont Mining and Machinery Co., \$6694. 7-26

W. Va., Hinton—City, Hume K. Nolan, Mgr., let contract to Luten Bridge Co., York, Pa., \$75,556, for 600-ft. 24-ft. wide, rein. conc. bridge over C. & O. Ry., Hinton. 7-19

Canning and Packing Plants

Fla., Daytona Beach—C. L. Pickering, Miami, representative of Pan-American Canning Co., considering erection of vegetable cannery.

Fla., Fort Meade—Peace River Packing Co., capital \$25,000, incorporated; John O. Singletary, L. C. Bowers; build packing plant.

Fla., Frostproof—Continental Fruit Products Co., organized by H. A. McIlvane, Cleveland, Ohio, and associates, plan establishing fruit products plant.

Fla., Orlando—B. F. Shaver, Orangeburg, S. C., having plans prepared by David Hyer, for citrus canning plant on Slight Blvd.; 100x125 ft.; J. Merle McElroy, 23 W. Lucerne Circle, will erect building.

Fla., Winter Haven—A. B. Coker & Son, Inc., capital \$10,000, incorporated; A. B. Coker, Louise Oller.

Fla., Winter Garden—Winter Garden Citrus Growers Exchange erect 114x170 ft. unit to canning and packing plant and remodel present building; cost \$60,000; work includes 12 coloring rooms and 12 pre-cooling rooms; A. E. Slauson, 57 W. Colonial St., Orlando, Contr.; Skinner Machinery Co., Dunedin, Mich., Contr.; York Mfg. Co., York, Pa., will install \$14,000 pre-cooling system.

La., Bogalusa—Dorgan-McPhilips Co., J. L. Smith, Mgr., enlarge canning plant; erect 5 vats; double capacity of fuel house; install automatic machinery; increase daily capacity from 850 cases to 2400 cases.

Clayworking Plants

Miss., Petal—Standard Brick & Tile Co., C. E. Fairley, Mgr., plans erecting 35,000 daily capacity brick plant.

CONSTRUCTION DEPARTMENT

Manufacturers Record

Okl., Holdenville—J. B. Stamper contemplates erection of brick plant.

Coal Mines and Coke Ovens

Ark., Hackett—Excelsior Coal Co., capital \$10,000, incorporated; G. W. Lennier.

W. Va., Philippi—Waddell Fuel Co. organized; George Waddell, Pres., Nell Waddell, Sec., for purpose of operating Bear Valley mine in Barbour County, recently acquired by Waddell Bros.; mine equipped with shaker screens, rope and button conveyor; has daily capacity between 15 and 25 cars prepared coal.

Concrete and Cement Plants

Tex., Austin—Austin Concrete Works increased capital, \$10,000 to \$20,000.

Tex., San Antonio—Republic Portland Cement Co., organized with J. H. Smith, Pres., W. M. Thornton, V-Pres., will construct 1,000,000 bbl. per year cement plant to cost approximately \$2,500,000; have acquired 600 acre site north of San Antonio, between main lines of M. K. & T. and Missouri Pacific railroads near Austin Highway; plant's major machinery units will consist of two 11x250-ft. kilns for burning, four 8x7x40 ft. compe mills for grinding, two 10x100-ft. coolers and large Dixie hammer mill for crushing; orders for kilns, mills and coolers have already been placed with Allis-Chalmers Mfg. Co., Milwaukee; let contract to General Electric Co., Schenectady, N. Y., for installing electrical equipment, including four 800 hp. motors, two 300 hp. units and about 8 units of 100 hp. each; plant will have 7½-ton P. & H. electric crane. Harnischferger Corp., Milwaukee, Wis.; will build modern community, to be known as Longhorn, for housing employees and for shipping point for product; Missouri-Kansas-Texas R. R. Co. and Missouri Pacific R. R. are laying tracks to plant site; San Antonio Public Service Co. will construct sub-station to serve electric power to new industry; purchase natural gas from Southern Gas Co.; engineering work being done by Terrell Bartlett Engineers, Inc., Calcasieu Bldg., and Richard K. Meade, 10 W. Chase St., Baltimore, Md., will act as Cons'tl. Engr. 6-7

Cotton Compresses and Gins

Ala., Florence—Florence Gin Co., H. S. Wiggins, Installing additional machinery, increase capacity to 120 bales daily.

S. C., Reidsville—J. D. Rosamond operating gins at Santuc and Woodside Mills, will erect gin, capacity 60 bales in 10 hours.

Tex., Hamlin—Pioneer Gin and Cotton Co., capital \$100,000, incorporated; T. E. Harden, F. H. Britten.

Tex., Southland—Farmers Gin Co., capital \$20,000, incorporated; G. W. Herd, Arthur Voight.

Cottonseed-Oil Mills

Ark., Arkadelphia—Temple Cotton Oil Mill Co. plan installing \$20,000 equipment; J. A. Gannaway, Jr., Mgr.

Ga., Macon—Swift & Co. acquired Georgia Cotton Oil Co.'s plant.

Ga., Valdosta—Southern Cotton Oil Co. acquired plant of Empire Cotton Oil Co.; will operate.

Tex., Garland—Watson Cotton Seed Co., Walter Watson, Sec., constructing 80x170 ft. addition to cotton seed plant, daily output 1 carload; wood floors, sheet iron roof; T. A. Sibley, Contr.; R. L. Goodson, Archt.; install motors, 2 elevators, conveyors and grading machines; Briggs Weaver, and Atlas Sheet Metal Works, Mchly. Contrs. 8-2

Drainage, Dredging and Irrigation

Fla., Fort Pierce—War Dept. granted permit to Fort Pierce Financing & Construction Co. for dredging ship channel across Indian River and turning basin and slips along west side of river to 22-ft. depth. 4-26

Fla., West Palm Beach—Palm Beach County Court approved issuing \$170,000 5½% Lake Worth Inlet Dist. refunding bonds.

Maryland—U. S. Engr. Office, 300 Custom House, Baltimore, receives bids Sept. 13 for dredging in Crisfield and Cambridge harbors. See Want Section—Bids Asked.

S. C., Charleston—U. S. Dist. Engr. has low bid from Arundel Corp., Pier 2, Pratt St., Baltimore, Md., at \$64,350 for dredging, deepening and widening Town Creek and Cooper River; about 500,000 cu. yds. 7-19

Tex., Corpus Christi—See Miscellaneous Construction.

Tex., Rio Grande—Starr County Water Improvement Dist. No. 1 voted \$1,500,000 bonds for constructing canal and ditch system which will irrigate 25,000 acres of land bordering Rio Grande. 7-5

Virginia—U. S. Engr. Office, Norfolk, receives bids Sept. 5 for dredging channel, Hampton Roads to Newport News. See Want Section—Bids Asked.

Electric Light and Power

Electric light and power work in connection with many LAND DEVELOPMENT operations involves the expenditure of large sums of money. See that classification for details.

Ala., Castleberry—H. R. Denel granted permission by Alabama Public Service Com'n., Montgomery, to construct and operate electric distribution system.

Ark., Camden—Arkansas Power and Light Co., Little Rock, is constructing a 110,000 volt high transmission line to connect at Camden with line from Sterlington plant; will serve Stephens, McNeil, Magnolia and other towns between Camden and Hayesville, La.; E. T. Brown, in charge.

Fla., Tampa—City plans installing \$15,000 lights on Main St.

Kentucky—Kentucky Electric Development Co., Inc., 317-20 Breslin Bldg., Louisville, Ky., will construct small Diesel electric power and light plant in various cities; 20x30 ft., all steel, conc. floors; install Diesel engines and generators. See Want Section—Machinery and Supplies, Building Materials and Equipment. 7-19

Miss., Charleston—Mississippi Power and Light Co., Jackson, will rebuild light and water plants lately acquired.

Miss., Escatawpa—Mississippi Power Co., Gulfport, may extend power line to here.

Miss., Oxford—City receives bids Sept. 4 for power house. See Want Section—Bids Asked.

Mo., Sedalia—City Light and Traction Co. expending \$30,000 for improvements to power plant on E. Broadway.

Mo., St. Louis—Bd. of Public Service receives bids Aug. 28 for furnishing, cleaning and maintaining electric street lighting system for 3 years.

North Carolina—Naill & Naill, Briscoe Bldg., Knoxville, Tenn., reported, have contract for steel linings in new Pigeon River tunnels for Carolina Power and Light Co., Raleigh; work includes 12,000 ft. of steel and 40 ft. underground casing, surge tank of 173 ft. 3-3

N. C., Columbia—Town receives bids Aug. 20 for electric plant and distribution system, etc. See Want Section—Bids Asked.

Okla., Luther—J. C. Harrison, Stroud, having plans prepared for 300 h.p. electric light plant and distribution system.

Okla., Sand Springs—Creek Osage Gas Co., incorporated; S. E. Wolff, Sand Springs; A. J. Biddison, Tulsa.

Okla., Woodward—City votes Sept. 14 on sale of electric light and power plant to Western Light and Power Corp., Salina, Kans. 6-21

Tenn., Nashville—Tennessee Light and Power Co., Springfield, authorized by Railroad and Public Utilities Com'n. to issue 250 shares of 7% cumulative preferred stock at \$100 per share; proceeds to be used to reimburse company for improvements and extensions to lines.

Texas—Middle West Utilities Co., 72 W. Adams St., Chicago, Ill., offering \$30,000,000 5½% serial gold notes through Halsey, Stuart & Co., Inc., New York, and associates; company owns or controls through stock ownership, public utilities companies in 30 states; proceeds to be used to reimburse treasury for funds used in development of subsidiary companies and for general corporate purposes. 5-3

Tex., San Antonio—See Concrete and Cement.

Fertilizer Plants

Fla., Jacksonville—Wilson & Toomer Fertilizer Co., 772 W. Bay St., erecting brick nitre house for storage nitrate of soda; 120x230 ft.; frame on cone foundation; construction by company; materials, machinery and equipment bought.

Flour, Feed and Meal Mills

Ark., Pine Bluff—Cook-Bahau Feed Mfg. Co., 220 Indiana St., plans rebuilding burned

plant, west of city limits; erect storage room and grain elevator.

Fla., Little River—Consumers Feed Corp., incorporated; L. H. Jones, Margaret Howlett.

Ky., Winchester—Winchester Roller Mills, capital \$750,000, incorporated; Wm. Woolcott, T. M. Walden.

La., Jennings—Miller Warehouse and Milling Co., Inc., establish stock feed plant; install \$60,000 machinery.

Tenn., Franklin—Dobson-Hicks Co., 108 Second Ave., N., Nashville, acquired S. M. Fleming Co.'s seed and grain elevator, warehouses, etc.; operate as subsidiary.

Tex., Houston—J. A. Saint of Saint & Co., Inc., 902 Dowling St., will erect 75x200 ft. 1-story and 45x75 ft. 2-story addition, on West St. near Campbell for grain storage and distribution.

Foundry and Machine Plants

Ky., Louisville—Henry Vogt Machine Co., Tenth and Ormsby Sts., let contract H. A. Doll Co., for \$350,000 warehouse; steel frame structure, brick curtain walls, 8 stories and basement, conc. floor; contract for struct. and miscellaneous iron let to McClintic-Marshall Co., Union Central Bldg., Cincinnati, Ohio; D. X. Murphy & Bros., Archts., Louisville Tr. Bldg. 8-2

Okla., Muskogee—Muskogee Iron Works, S. M. McManus, Mgr., Frankfort and Spaulding Sts., erect \$15,000 foundry; 200x140 ft., corrugated iron on steel frame.

S. C., Spartanburg—Standard Looms, Inc., Isaac Andrews, Pres., 519 E. Main St., let contract to Fiske-Carter Construction Co., 121½ W. Main St., for plant to manufacture looms and complementary machinery; Lockwood, Greene & Co., Engrs., Charlotte, N. C. 8-9

Gas and Oil Enterprises

Ark., Fayetteville—John McCullough, Tulsa, Okla., negotiating for gas franchise.

Ark., Louann—Sheldon Oil Co., capital \$50,000, incorporated; Jim B. Higgins, T. E. Abbott.

Fla., DeLand—Charles B. Hawley Engineering Corp., Munsey Bldg., Washington, let following contracts for pipe line Sanford-DeLand: Benjamin Thompson, Tampa, for construction line in city; Bryce Plumbing and Heating Co., Florence, S. C., for line Sanford to DeLand; Barnett & Dobson, Palatka, for river crossing; Ingersoll-Rand Co., 11 Broadway, New York City, for compressors; Chicago Bridge and Iron Works, Chicago, for gas holders; Gas Machinery Co., 1900 Euclid Ave., Cleveland, Ohio, for additional gas manufacturing machinery for Sanford Gas Co.; Walworth Co., 51 E. 42d St., New York City, for valves and fittings; work will start promptly; contracts all let and everything purchased; all materials to be furnished by Charles B. Hawley Engineering Corp., Munsey Bldg., Washington, D. C. 8-9

Fla., Tampa—Asiatic Petroleum Co., 65 Broadway, New York, subsidiary Royal Dutch Shell Co., reported, plans erecting storage plant; later may establish refinery.

Fla., West Palm Beach—Florida Public Utilities Co. purchased Steere multiple washer for local gas plant from Semet-Solvay Engineering Corp., 40 Rector St., New York City; apparatus will have capacity of 3,000,000 cu. ft. in 24 hours.

Ky., Louisville—Louisville Gas & Electric Co. ordered quantity of Steere welded steel pipe and fittings from Semet-Solvay Engineering Corp., 40 Rector St., New York City, for installation at Beargrass plant; 24-in. and 30-in. size; Van Stone type flanges.

Ky., Owensboro—Red Hill Oil Co., capital \$100,000, incorporated; D. C. Stimson, W. J. Taylor.

La., Edgard—Capt. Joseph A. Bisso, 171 Walnut St., New Orleans, granted franchise for electric line on west bank of Mississippi River; will distribute power from plant at Luling, La.

Md., Annapolis—Consolidated Gas, Electric Light and Power Co., Lexington Bldg., Baltimore, applied to Public Service Com'n., Baltimore, for permission to lay high pressure gas mains to connect with mains of Annapolis and Chesapeake Bay Power Co. (subsidiary); supply service to Glenburnie, Woodlawn Heights, Garland Park, Ferndale Farms, Cromwell and Ferdinand Heights.

Missouri—Missouri-Kansas Pipe Line Co., 820 Dwight Bldg., Kansas City, constructing compressor station containing four 185 h. p. Superior engines and 1 additional unit of same size at Paola Station; Connor & Son

Construction Co., Security Bldg., Kansas City, Contrs.; equipment purchased from National Supply Co., Toledo, Ohio; American Co., 105 W. 40th St., New York, has contract for meters. 6-28

Mo., Kansas City—Fern Gas Production Co., incorporated; Smith F. Brandon, 425 N. Y. Bldg.

Mo., Springfield—Cities Service Co., Henry L. Doherty, V. P. and Gen. Mgr., 60 Wall St., New York, construct natural gas line between Joplin and Springfield; will begin preliminary survey soon and decide on tentative route.

N. C., Reidsville—Atlantic Gas Co., Lewis Bldg., Philadelphia, Pa., has gas franchise; will extend line to Leaksville-Spray and Draper from here. 6-28

N. C., Statesville—Statesville Oil Co., capital \$100,000, incorporated; J. P. Flanagan, Statesville; W. L. Moore, Candier Bldg., Atlanta, Ga.

Oklahoma—Consolidated Gas Utilities Co., Logan W. Cary, Pres., Oklahoma City, let contract to Worthington Pump and Machinery Corp., 115 Broadway, New York, at \$300,000 for equipping compressor stations for 165-mile natural gas line from Amarillo, Tex., to Enid. 8-9

Okla., Oklahoma City—Fidelity Royalty Co., capital \$250,000, incorporated; W. C. Kite, Braniff Bldg.

Okla., Woodward—Dame Brothers Co., capital \$15,000, incorporated; C. W. Dame, George S. Lowrey.

Tenn., Memphis—Briscoe Oil Co.; F. M. Briscoe, 495 N. Garland St.

Tex., Fort Worth—Cosden Pipe Line Co., incorporated; J. S. Cosden, Fort Worth Natl. Bank Bldg.

Tex., Fort Worth—Red Hot Oil Corp., capital \$50,000, incorporated; D. E. Little, 3340 Jennings St.

Tex., Goree—Stamford and Western Gas Co. plans construction gas mains.

Tex., Houston—Ingleside Gas Co., capital \$40,000, incorporated; R. E. Brooks, Stewart Bldg.

Tex., Midland—Magnolia Petroleum Co., Houston, acquired 640 acres additional land, probably use for storage buildings.

Tex., San Antonio—See Concrete and Cement.

Tex., Sweetwater—Sweetwater Oil and Refining Co. increase capacity of plant 1500 bbls. to 4000 bbls.; install additional pumps and tanks; cost \$25,000; construct pipe line from here to Nodle Creek pool, Jones County and extend to Fisher County, 25 mi. and 22 miles, cost \$200,000; will let contract in Sept. See Want Section—Machinery and Supplies. 8-9

Tex., Wichita Falls—J. J. & M. Taxman Refining Co., acquired Miller Refining Co.; will improve; increase daily output to 2500 bbls.

Ice and Cold-Storage Plants

Tex., Dallas—Southwest Ice Co., incorporated; H. T. Ray.

Va., Virginia Beach—Virginia Beach Ice Delivery Corp., capital \$100,000, incorporated; W. R. Ashburn.

Land Development

Ala., Birmingham—Robinwood, Inc., chartered; Forrest Woods, 1500-B N. 26th St.

Ala., Montgomery—Woodley Country Club, Woodley Road, plans enlarging golf course to 18 holes.

Ark., Fort Smith—Fort Smith Country Club, M. W. Johnson, Pres., 1105 N. 35th St., construct 18 hole golf course.

Fla., Bradenton—Brasota Farms, Inc., chartered; Joseph Geia, J. F. McDevitt.

Fla., Bunnell—Flagler County Growers, Inc., chartered; C. D. Yelvington, H. C. Miller.

Fla., Bushnell—Marion-Shelton Co., incorporated; W. C. Marion, M. H. Shelton.

Fla., Fort Myers—Leak Subdivision Corp., incorporated; C. E. Buckley, Wm. J. Wood.

Fla., Jacksonville—Elliott Corp., incorporated; M. L. Elliott, 706 Franklin St.

Fla., Jacksonville—T. G. Buckner, Mgr., Florida Coca Cola Bottling Co., 14th St., acquired 11 acres near Loint La Vista.

Fla., Maitland—Price & Babcock Co., incorporated; H. S. Lyons, H. K. Babcock.

Fla., Miami—Auburn Heights Development Co., Inc., chartered; E. L. Hughes, Bank of Bay Biscayne Bldg.

Fla., Miami—Valmont Corp., Dr. Wm. Preston Hill, Pres., develop 960 acres in Collier County for agriculture and groves. 7-19

Fla., Miami—Vimos Corp., chartered; H. F. Ward, 1311 Alhambra Circle.

Fla., Miami—G. T. O'Farrell & Co., incorporated; G. T. O'Farrell, Seybold Bldg.

Fla., Orlando—Bumby Grove, Inc., A. L. Matthews, Sec., develop 700 acres in fruit. 8-2

Fla., Sarasota—Sarasota Celery Corp., incorporated; J. R. Watson, Whitfield Estates.

Fla., Tampa—Hillsborough County School Bd. let contract to Cone Bros. Construction Co., Caesar and Walton Sts., for grading athletic field; J. P. Hardee Construction Co., 407½ Ashley St., for grading at Plant High school; B. M. Sullivan, Civil Engr., 510½ Franklin St. 8-9

Fla., Vero Beach—W. J. White develop 20 acres on Lateral Road; drill artesian well.

Fla., Vero Beach—Vero Beach Fruit and Vegetable Co., Inc., chartered; Charles Harris, Louis Harris.

Fla., West Palm Beach—Lopenic Holding Co., incorporated; Joe Hatfield, Fagan Arade.

Ga., Atlanta—City accepted 40 acre tract on Peachtree Creek as addition to Peachtree Battle Memorial Park.

Ga., Indian Springs—E. A. Donavan, St. Petersburg, interested in developing golf course.

Ga., Savannah—Phoenix Realty Co.; Wm. G. Carroll, 1124 E. 37th St.

Ky., Louisville—Skyland Co., capital \$100,000, incorporated; Charles I. Dawson, Fourth and Chestnut St.

Ky., Pikeville—Hellier Realty Co., incorporated; F. G. Rockwell, F. L. Rice.

La., East Baton Rouge—Sugar Belt Land Co., Inc., capital \$25,000, chartered; F. W. White, 641 Bungalow Lane.

Md., Baltimore—James Charles Byrne, Inc., 233 St. Paul St., chartered; Charles Byrne.

Md., Baltimore—J. A. Young, Inc., of Baltimore City, chartered; Jacob A. Young, 1 Orkney Court.

Md., Cumberland—City plans developing 28 acres adjoining Fort Hill reservoir for park.

Md., Rockville—Wise Realty Co., Inc., chartered; Eda E. Wise, Wm. Jose, Jr.

Miss., Pascagoula—City plans issuing \$50,000 bonds for park, play ground and recreation pier; erect pavilion and bathing beach. 8-9

Mo., St. Louis—Henley Co., acquired subdivision on North Denny Rd.; install water, sewers, streets, etc.

Mo., St. Joseph—N. L. Stevenson plans improving Lovers Lane property.

Mo., St. Louis—Federal Realty Co., capital \$50,000, incorporated; D. M. Drove, M. C. Hahn.

Mo., University City—Chamberlain Owings Real Estate Co., incorporated; Morris C. Owings, 8011 Venetian Drive, St. Louis.

N. C., Asheville—Westlyn Home Co., Inc., capital \$100,000, chartered; George F. Robinson, Medical Bldg., Charles G. Buck; acquired Stradley Mountain Park property in Lower Hominy Township, tract of 700 acres.

N. C., High Point—Rowland-White, Inc., capital \$100,000, incorporated; M. C. Rowland, 1419 Montlieu St.

N. C., Lenoir—Lenoir Golf Club, incorporated; H. E. Merritt, T. H. Brewhill.

Okla., Ardmore—Oklahoma Pecan Developers, Inc., capital \$100,000, incorporated; John Reeves, Paul Frame.

Okla., Oklahoma City—John J. Harden, Inc., Petroleum Bldg., developing 151 acres at 23rd St. and Eastern Ave. for subdivision.

S. C., Greenville—Walter Rush Real Estate Agency, Chamber of Commerce Bldg., and John L. Newman, 248 McDaniel Ave., interested in developing 31 acres on McDaniel Ave.

Tenn., Chattanooga—City plans voting on park improvement bonds. See Financial News.

Tex., Anahuac—J. L. C. and W. P. H. McFaddin, Jr., acquired 13,367 acres in Jefferson County.

Tex., Beaumont—Southwestern Settlement and Development Co., H. M. Ritter, Pres., Silsbee, Charles E. Phelps, Colonization Commr., has begun colonization program for 1,000,000 acres of cutover lands of Southeastern and Eastern Texas, in Hardin, Jasper, Tyler, Orange, Polk, Newton and San Augustine counties. 4-26

Tex., Crystal City—Crystal City Golf Club, capital \$10,000, incorporated; W. W. Walker, H. A. Mercer; develop 50 acre golf course.

Tex., Del Rio—Jack Cain acquired 6400-acre ranch on Pecos River.

Tex., Fort Worth—City develop 30-acre tract at Diamond Hill for park and recreation center; R. D. Evans, Recreation Supt.

Tex., Galveston—Gulf Realty Co., incorporated; Emanuel Wiesenthal, 3124 O St.

Tex., Houston—Terminal Realty and Investment Co., incorporated; A. L. Schroeder, R. B. Walker.

Tex., Houston—Shimmerhorn Investment Co. develop 400 acres 15 miles south of city.

Tex., Houston—Ship Channel Improvement Co., Capt. James A. Baker, acquired 2200 acres on south side of ship channel.

Tex., Kerrville—John A. Ward, Sonora, and associates, acquired 20,000 acres in Kerr County.

Tex., Lampasas—A. W. Bales acquired 353 acres on Lometa Highway.

Tex., Marble Falls—City Comn. acquired and will improve cemetery.

Tex., Midland—City plans developing park and children's playground.

Tex., Rankin—J. H. Tippett acquired 30,000 acre ranch.

Tex., San Antonio—Terrell Hills Co., Ward Kelley, Pres., let contract to John Mason for clearing land preparatory to subdividing 225 acres for home sites; install water, sewers, electricity, roads, streets, etc.; Hare & Hare, Landscape Archt., and City Planners, Huntzinger Bldg., Kansas City, Mo.

Va., Franklin—Blackwater Corp., incorporated; J. M. and P. R. Camp.

Va., Hopewell—Norwood Wilson, B. G. Slaughter interested in development golf course on 100 acres in Chesterfield County.

Va., Petersburg—City, Dr. W. F. Drewry, Mgr., develop 80 acre addition to Blandford Cemetery; construct roads, parks, lake, ornamental gates; C. F. Gillespie, Landscape Archt., 508 E. Franklin St., Richmond.

Lumber Enterprises

Ark., Huntsville—Guy C. Sanders will erect sawmill.

Fla., Winter Haven—Ridge Lumber Co., incorporated; H. A. Shaw, T. J. Costello.

Miss., Columbus—T. J. Moss Tie Co., Security Bldg., St. Louis, Mo., soon start constructing cross-tie creosoting plant on recently acquired 40-acre site near junction of Frisco and C. & G. railroads; employ 100 persons.

Tenn., Nashville—Farris Hardwood Lumber Co., Alfred C. Farris, Pres., Oldham St., will rebuild burned plant.

Mining

N. C., Bowditch (P. O. Micaville)—Feldspar Milling Co. organized; C. P. Rogers, Pres., Tryon, N. C.; C. S. Smart, Sec., Concord; constructing feldspar milling plant at Bowditch, Yancey County; expect to begin operating early in Nov.; contracts for machinery let; Rudolph Glatly, Burnsville, Mill Supt.

Okla., Tulsa—Dresser Mining Co., incorporated; Carl K. Dresser, 235 W. 18th St.

Miscellaneous Construction

Arkansas—War Dept., Mississippi River Comn., 1st and 2d Dists., 1006 McCall Bldg., Memphis, Tenn., receives bids Aug. 23 for constructing 610,500 cu. yds. of earthwork in Lower St. Francis Levee Dist., White River Levee Dist. and White River Levee Dist. of Woodruff, Prairies and Monroe Counties, Ark. See Want Section—Bids Asked.

Fla., Leesburg—U. S. Engr. Office, Jacksonville, let contract to Des Rocher & Watkins, Miami, at \$33,000 for excavating canal and constructing dike near Leesburg and Ocala.

La., New Orleans—Mississippi River Comn., Fourth Dist., Maj. W. H. Holcombe, Dist. Engr., has low bids from following for approximately 6,300,000 cu. yds. earthwork, bids opened Aug. 6, in levees designated as follows, name of low bidder, price per cu. yd., estimated net yardage and name of levee: Don B. Hearn & Son, Triad Bldg., Baton Rouge, La., \$6345, 38,000, Lake St. John; S. J. Groves & Sons Co.,) E. Pine St., Orlando, Fla., \$28, 285,000, Fish Pond; Canal Construction Co., McCall Bldg., Memphis, Tenn., \$393, 242,000, Brabston; Sternberg & Co., Inc., Arcade Bldg., St. Louis, Mo., \$29, 235,000, Roseland Ashland; Dameron

CONSTRUCTION DEPARTMENT

Manufacturers Record

& Kenyon, Fort Allen, La., \$15, 175,000, Union Point-Shaw; Canal Construction Co., \$315, 750,000, New Texas; Thomas & Sells, Tampa, Fla., \$30, 338,000, St. Francis Church; Lewis-Chambers Construction Co., Canal Bk. Bldg., New Orleans, \$2808, 325,000, Eliza; Dameron & Kanyon, Fort Allen, La., \$1561, 93,000, Lauderdale; Sternberg & Co., \$24, 212,000, Brookstown; Sternberg & Co., \$20, 116,000, Bonnett Carre; Sternberg & Co. and Dameron & Kanyon, Port Allen, La., both \$22, 84,000, Waterford; O. O. Ogden, Louisiana Nat'l Bk. Bldg., Baton Rouge, La., \$1823, 101,000, Ashton; Scott & Bres, Maritime Bldg., New Orleans, La., \$2243, 21,000, Oak Point; Scott & Bres, \$2243, 14,000, Augusta; Lower Coast Construction Co., Godchaux Bldg., New Orleans, \$16, 62,000, Ollie; O. O. Ogden, \$1774, 142,000, Myrtle Grove; Lewis-Chambers Construction Co., Canal Bk. Bldg., \$215, 408,000; Gay; Lewis-Chambers Construction Co., \$215, 520,000, Willow Grove; Lewis-Chambers Construction Co., \$1798, 290,000, St. Elmo; O. O. Ogden, \$1423, 520,000, Reserve; Scott & Bres, \$2317, 29,000, Chalmette Cemetery; Lower Coast Construction Co., \$21, 47,000, Monsecour; Lower Coast Construction Co., \$17, 74,000, Suburban Club; Lower Coast Construction Co., \$43, 11,000, Uper Pointe-a-la-Hache; O. O. Ogden, \$1623, 66,000, Legion; O. O. Ogden, \$1623, 140,000, Forest Grove; O. O. Ogden, \$1523, 140,000 cu. yds., Evans Point; O. O. Ogden, \$623, 87,000, Hicks; O. O. Ogden, \$1623, 90,000, Crooked Bayou; O. O. Ogden, \$1523, 230,000, Baberton; Howard Kenyon Dredging Co., 3605 McKinney St., Houston, Tex., \$21, 145,000, Richard; Callahan-Walker Construction Co., Omaha, Neb., \$244, 50,000, Sandy Bayou; Newton Construction Co., Hammond, La., \$14, 100,000, Richardson Point.

La., New Orleans—Roca-Mestayer Co., Inc., 600 N. Claiborne St., furnished 1,000,000 ft. of long-leaf yellow pine for roof Poydras Street Wharf now under construction. 7-12

Md., Ocean City—State Roads Comm., Baltimore, receives bids Aug. 21 for constructing timber jetty. See Want Section—Bids Asked.

Miss., Vicksburg—Mississippi River Comm., Third Dist., Major John C. H. Lee, U. S. Engr., let following contracts for which bids were received July 2 for constructing 6,440,000 cu. yds. of levee work: Items 7 and 18, T. W. Roach, North Memphis Savings Bk. Bldg., Memphis, Tenn.; item 9, R. T. Clark Co., Inc., John W. Noble and William C. Mullen, Natchez, Miss.; item 10, Brown Denison Contracting Co., Inc., Memphis, Tenn.; item 13, Wooton & Perry, Vicksburg, Miss.; item 15, H. B. Blanks, Angola, La.; items 17 and 25, Thompson & Moseley, Inc., 608 Tampa St., Tampa, Fla.; items 19 to 24, inclusive, Sternberg Co., Inc., Arcade Bldg., and Rodgers Bros. & Co., St. Louis, Mo. 7-26

N. C., Charlotte—City Comms. receive bids Aug. 29 for constructing incinerator. See Want Section—Bids Asked. 7-5

Tenn., Chattanooga—Incinerator—City plans voting on bonds. See Financial News.

Tex., Corpus Christi—City, H. L. Shaw, Engr., completed sounding and preliminary engineering work on bayfront beautification project estimated to cost \$1,250,000; plans include construction of concrete retaining wall and shifting of about 1,000,000 cu. yds. of material, boat landings, paving and curbs; reclaim property valued at approximately \$2,500,000.

Tex., Galveston—Ferry Landings—See Roads, Streets, Paving.

Tex., Galveston—Galveston County Comms. receives bds Sept. 4 for ferry landing. See Want Section—Bids Asked.

Tex., Port Bolivar—Galveston County Comms. receive bids Sept. 4 for ferry landing. See Want Section—Bids Asked.

Miscellaneous Enterprises

Ala., Birmingham—C. P. Lichty Engineering Co., capital \$20,000; incorporated; C. P. Lichty, 507 N. 22d St.

Ala., Birmingham—Mountain Book Candy Co., incorporated; W. N. McCary, 1217 S. 20th St.

Ala., Dothan—Joe and Thomas Saliba acquired Edwards Ice Cream Co.; operate as Southern Ice Cream Co.

Ala., Mobile—Standard Unit Navigation Co., 408 Pine St., St. Louis, Mo., plans expending \$300,000 to establish barge line between Mobile and Montgomery.

Ark., Conway—Grisham Ice Cream Co., E. W. Renner, Mgr., acquired Jeffries Ice Cream Co., N. Locust Ave.

Ark., El Dorado—El Dorado Laundry Co. acquired New Way Laundry.

Ark., Hot Springs—City voted bonds for fire and street cleaning equipment.

Ark., Little Rock—Blue Sky Division of Arkansas Railroad Comm. granted permit to Mid-West Specialty Co. to sell 1600 shares of common stock at \$25 per share; company will manufacture reserve fuel tank for automobiles, which automatically refills itself when main tank is refilled.

Fla., Homestead—Harry Wolfe acquired Homestead Ice Cream Co.

Fla., Jacksonville—Sunshine Food Products Corp., 1911 Danese St., increased capital \$25,000 to \$75,000.

Fla., Lake Worth—Hampers, Crates, etc.—Pioneer Hamper Co., Inc., capital \$10,000, chartered; A. W. Godfrey, G. F. Manion.

Fla., Lakeland—Wright Construction Co., capital \$15,000, incorporated; G. C. Wright, Florida Ave. and Peachtree St.

Fla., Lakeland—Paving Material—Macaphill Corp. of Georgia, incorporated; William P. McDonald, Marble Arcade.

Fla., Miami—Chemicals—Greater Miami Laboratories, Inc., chartered; A. H. Hill, L. L. Odom.

Fla., Miami Beach—Builders and Contractors—John C. Gaffney, Inc., chartered; D. A. Gaffney, C. Gaffney.

Fla., Panama City—Payne & Fannin Dry Goods Co., capital \$25,000, incorporated; H. G. Fannin, A. A. Payne.

Fla., Pompano—Robson-Bakes Construction Corp., incorporated; R. E. Robson, H. Bakes.

Fla., St. Petersburg—Construction—Chas. L. Snyder Properties, Inc., incorporated; C. L. Snyder, 725 Eighth St., S.

Fla., Tampa—Water Tanks, etc.—Wilma Water Co., Inc., capital \$10,000, chartered; W. Phillips, 303 S. Newport Ave.

Fla., Tampa—Pittsburgh Plate Glass Co., 1006 Ashley St., erect building.

Fla., Tampa—Illuminating Equipment—Florida Universal Light Co. incorporated; L. N. Dantzler, Jr., 2720 Jetton Ave.

Ga., Atlanta—Southeastern Hotel Journal, Inc., J. Ben Wand, Publisher, 37 W. Monroe St., Jacksonville, Fla., has acquired Southeastern Hotel Reporter, Hurt Bldg.

Ky., Bloomsfield—Farmers Loose Leaf Tobacco Warehouse Co., capital \$30,000, incorporated; Nat J. Muir, Payton McMakin.

Ky., Louisville—United States Foil Co., 30th and Grand Sts., acquired Robertshaw Thermostat Co., Youngwood, Pa., and Beachnut Foil Co., Brooklyn, N. Y., and organized new company to be known as Reynolds Metals Co.; company will issue approximately 50,000 shares of no par value participating preference stock; Richard S. Reynolds, Pres. of United States Foil Co., Louisville, Ky., will be president of new company. 8-9

Ky., Madisonville—Calumet Mfg. Co., Hammond, Ind., plans moving overall and parts factory here.

La., New Orleans—Tobias Bag Co., Max N. Tobias, Prea, 2003 St. Louis St., let contract at \$26,717 to C. W. Hendley, 4239 Holly Grove St., for factory, Cortez and Conti Sts.; 1 story, 138x180 ft., brick, rein. conc., comp. roof, wood floors; Heard & Matthews, Archts., Balter Bldg. 7-12

La., New Orleans—Belle Pointe Milk, Inc., chartered; Martin P. Gridley, 7825 Hampson St.

Md., Baltimore—Maryland Advertising Co., Remington Ave. and 30th St., incorporated; R. Loray Langdale.

Md., Baltimore—Industrial Power Equipment Co., 421 W. Camden St., incorporated.

Md., Baltimore—Davison Chemical Co., Garrett Bldg., contemplates installation in present buildings of additional equipment to double output of contact sulphuric acid plant, present capacity 100 tons daily; expect to put in operation by Dec.

Md., Baltimore—Venetian Construction Co., 3751 Reisterstown Road, incorporated; Alfred Spampinato.

Md., Baltimore—Benedict Stone of Maryland, Inc., J. Kemp Bartlett, V. Pres., Boston St. and Montford Ave., moving plant into one of main buildings of Bethlehem Shipbuilding Co., Fort Ave., Locust Point; will install machinery; have general office at 2101 E. Fort Ave.

Md., Bel Air—Farm Machinery—Rutledge-Thatcher Corp., incorporated; J. Charles Rutledge.

Md., Hyattsville—Dredging Equipment—District Dredging Co., incorporated; Walter M. Bauman, Clarence W. Gosnell.

Md., Silver Springs—Washington Community Publications, Inc., chartered; E. Brooke Lee, T. Howard Duckett.

Miss., Biloxi—Mazar Fish and Oyster Co. erecting packing plant.

Miss., Jackson—Wright Cast Stone Co., incorporated; Nellion H. Wright, 425 N. West St.

Miss., Mendenhall—Mendenhall Lions Club, Dr. C. M. Wells, Sec., interested in establishing laundry.

Miss., Prentiss—Lions Club interested in establishing dairy.

Miss., Senatobia—Senatobia Gin and Ice Co., R. E. Clark, Pres., let contract to H. B. Sealy for cheese plant; brick, conc. 32x96 ft., conc. floors, comp. shingle roof; cost \$15,000. See Want Section—Machinery and Supplies. 8-9

Mo., Kansas City—Higgin Mfg. Co., 1820 Lydia St., leased building, 505 W. 25th St., will install new equipment; company manufactures screen and weather stripping.

Mo., Kansas City—Radium Springs Water Co., 1316 Oak St., erect plant, daily output of 5000 gals. of medicinal water. See Want Section—Machinery and Supplies. 8-9

Mo., Kansas City—Heck Electric Lawn Motor Co., incorporated; Herman L. Heck, 1618 Linwood St.

Mo., Kansas City—Colonial Cleaners, Inc., chartered; Ernest Wilson, 1807 W. 41st St.

Mo., Marshall—Page Milk Co., Merrill, Wis., let contract to Ed E. Page for \$250,000 condensary.

Mo., St. Louis—Western Sheet Metal Works, Inc., chartered; Gus H. Becker, 50 Lewis Place.

Mo., St. Louis—Standard Shade & Window Fixture Co., incorporated; Wilfred C. Maxeiner, 4136 Peck St.

Mo., St. Louis—Fanaire Heater Co., incorporated; Carlyle Emery, 5502 Delmar St.

Mo., St. Louis—Federal Radium Laboratories, Inc., chartered; H. T. Smith, 4021 Page St.

Mo., St. Louis—St. Louis American Publishing Co., 11 N. Jefferson St., incorporated; R. W. Kent, G. H. Turpin.

Mo., St. Louis—Miller Bias Binding Co., incorporated; Percy J. Miller, 421 Woodlawn Ave., Webster Groves.

Mo., St. Louis—Alfred Building Co., incorporated; Edward F. Eiswirth, 4928-A Kansas St.

Mo., St. Louis—Hinde-Dauch Paper Co., Sandusky, Ohio, acquired plant of Standard Corrugated Box Co., 5110 Penrose St.

N. C., C. C. Sampson Observer Publishing Co., Inc., capital \$30,000, chartered; W. M. Matthews, C. L. Phillips.

N. C., High Point—Box Containers, etc.—Carolina Containers Co., capital \$200,000, incorporated; Jefferson Penn, Reidsville; Chas. T. Ingram, High Point.

N. C., Louisburg—California Cottage Cheese Co., incorporated; S. Z. Schaeitz, G. B. Frazer.

N. C., Oxford—Greenville Tobacco Co., capital \$100,000, incorporated; M. F. Jones, J. W. Hines.

N. C., Rocky Mount—Brewer Paint and Wallpaper Co., capital \$25,000, incorporated; J. B. Brewer, M. E. Williams.

N. C., Shelby—Shelby Publishing Co., incorporated; Claude J. Mabry, J. Nelson Callahan.

Okl., Lawton—Longhorn's Laboratories, capital \$25,000, incorporated; C. W. Jones.

Okl., Oklahoma City—Smith Baking Co., Charles F. Yost, Mgr., 1331 N. Oklahoma St., erecting building; 132x132 ft., 3 stories.

Tenn., Knoxville—Contractors Equipment—Wilson-Weesner-Wilkerson Co., 422 Front St., will let contract Aug. 15 for plant and warehouse, Barwell St.; warehouse and office building, 50x130 ft., rein. steel and rein. conc.; fabricating plant will cover about 10,000 sq. ft. floor space.

Tenn., Memphis—Drugs, etc.—Cannon Chemical Co., 398 S. Front St., Memphis, manufacturers of cosmetics and drug sundries; Allied Drug Products Co., Chattanooga, manufacturers of patent medicines; and Golden Peacock Co., Paris, manufacturers of toilet preparations; have consolidated with capital of \$2,000,000.

Tenn., Nashville—Soft Drinks—Beverley Club Beverages Co., 1704 Cedar St., Nashville; Les-Go Mfg. Co., of Delaware and Florida; and Self-Serve Bottling Vendor Co., Fort Dodge, Iowa, have merged; headquarters will be at Nashville.

Tenn., Nashville—Victor Chemical Works, 343 S. Dearborn St., Chicago, and Centennial Bldg., Nashville, erecting addition to plant including furnace for production of phosphoric acid.

Tex., Amarillo—M. C. Hancock Construction Co., capital \$60,000, incorporated; M. C. Hancock, 1018 W. Sixth St.

Tex., Austin—Chamber of Commerce, Bd. of Directors, interested in establishing cheese plant.

Tex., Borger—Isom Steam Laundry, incorporated; G. L. McConnell, C. B. Neil.

Tex., Corpus Christi—Corpus Christi Mutual Life Insurance Co., incorporated; E. L. McClure, Nixon Bldg.

Tex., Dallas—Mrs. Baird's Bread Co., Dallas, and 814 Sixth Ave., Fort Worth, let contract to W. H. King, Construction Industries Bldg., at \$125,000 for building, 1405 N. Carroll Ave.; brick, steel, conc., 3 stories.

Tex., Dallas—Daltex Spring Bed Co., incorporated; Lyle Marshall, 4905 Swiss St.

Tex., Dublin—Dublin Creamery Co., Inc., incorporated; Walter Hamilton, W. T. Music.

Tex., Houston—Texas Hotel Supply Co., 1316 Clay St., increased capital, \$180,000 to \$350,000.

Tex., Houston—W. D. Haden Co., Inc., having plans drawn for 100 ton per day oyster-shell lime plant; contract for rotary kiln and cooler let to Traylor Engineering and Mfg. Co., 60 Water St., New York; constructing railroad trackage into plant; will let contract to local contractors in Oct. for foundation piling, etc.; construction under supervision of company engineers; Arnold & Weigel, Woodville, Ohio, are drawing plans.

Tex., San Angelo—San Angelo Lightning-Proof Tank Works, capital \$2,000,000, incorporated under laws of Delaware; James Brown, inventor of new device to prevent oil tank fires.

Tex., San Antonio—Express Publishing Co., Crockett and Navarro Sts., receives bids Aug. 31 for erecting building, N. W. corner E Ave. and Third St.; 5 stories with 3-story tower, 141x188 ft., rein. conc., cast stone trim, marble tile; wood block and cement floors; plans from Herbert S. Green, Archt., Alamo Bank Bldg. 4-26

Tex., Shamrock—Joe Barnhart and others plan incorporating with capital of \$25,000; will erect ice cream and butter factory; brick, 50x100 ft.

Tex., Shamrock—W. Y. Burden erect 2-story building for coca-cola bottling works; 50x140 ft., brick; cost \$15,000.

Tex., Waco—Waco Packing Co., capital \$50,000, incorporated; J. W. Simpson, 1540 Lyle Ave.

Va., Richmond—Caukenell Bag Corp., capital \$100,000, incorporated; M. Wallace Monroe, Jr., Mutual Bldg.

Va., Richmond—Central Publishing Co., 1536 E. Broad St., increased capital, \$25,000 to \$50,000.

Va., Richmond—Central Publishing Co., Inc., 1536 E. Broad St., increased capital, \$25,000 to \$50,000.

Va., Roanoke—Nu Icy Bottling Corp., capital \$25,000, incorporated; A. A. Babcock, J. M. Kyle.

Va., Wytheville—Wytheville Bottling Co., incorporated; W. G. Shores, W. B. Borer.

W. Va., Buckhannon—Myron E. Hymes, A. C. Shannon, E. E. Stoffel, interested in establishing factory here to manufacture overalls and work pants.

W. Va., Huntington—Sanavapor Laboratories, Inc., 405 Fourth Ave., capital \$50,000, chartered; J. B. Taylor.

Motor Bus Lines and Terminals

Virginia—State Corp. Comm., Richmond, authorized Roanoke Railway and Electric Co., Roanoke, to operate motor bus line between Vinton and Blue Ridge Heights, Roanoke County.

Va., Roanoke—Safety Motor Transit Corp., C. B. Short, Mgr., 23 Salem Ave., acquired site on Holiday St., will erect garage for buses.

Motor Cars, Garages, Filling Stations

Ala., Abbeville—Abbeville Auto Co., capital \$13,000, incorporated; H. W. Owens, O. G. Hardwick.

Ala., Anniston—Adams-McCargo Motor Co. erect \$25,000 building; S. A. Russell, Contr.

Ala., Birmingham—A. M. Throckmorton, 6 N. 21st St., erect garage; 1 story, 50x140 ft., brick; tar and gravel roof; Wilborn Construction Co., Contr., 2007 Ave. J., Ensley.

Ala., Birmingham—Robt. R. Meyer, Comer Bldg., has low bid at \$39,750 from Johnson Woolley Construction Co., 30 W. Third Ave., for garage and store building; 1 story, 100x190 ft., stone, brick; Furner & McPherson, Archt., 1212 Martin Bldg.

Ark., Dardanelle—Dardanelle Auto Co., capital \$30,000, incorporated; L. C. Adams.

Fla., DeLand—Volusia Motor Co., Inc., chartered; William C. Smith, R. L. Warrenford.

Fla., Jacksonville—City Comm. rejected bids; will receive new bids Aug. 27 for garage and machine shop building on W. Third St.; rein. conc., struct. steel, comp. roof; specifications from John Fowler, Building Inspector.

Ga., Savannah—Morrison-Boller Tire Co., capital \$12,500, incorporated; Wesley W. Morrison, 819 Maupin Ave.

Ky., Williamsburg—Williamsburg Motor Co. incorporated; N. M. Hill, H. H. Davis.

La., New Orleans—Chevrolet Motor Co., Detroit, Mich., let contract to Gervais F. Favrot, Balter Bldg., for constructing \$150,000 parts distribution plant, at intersection of Illinois Central Railroad crossing and Jefferson Davis Pkwy.; brick, 2 stories; also erect retail distributing station, Canal and Miro Sts., to be leased to local dealer.

Md., Brooklyn (Sta. Baltimore)—Thomas C. Chase, Inc., chartered; Thomas C. Chase, Potomac and First Sts.

Md., Hampstead—Truck Bodies—Hampstead Body Corp., incorporated; Geo. C. Snyder, Cecil A. Snyder.

Miss., Meridian—J. V. Ulmer, Fifth St. and 20th Ave., let contract to L. B. Priester & Son, 1403 12th Ave., for converting building into garage and filling station, brick steel; P. J. Krouse, Archt., M. & W. Bldg.

Mo., Kansas City—Frank C. Baker of B. & H. Motor Co., 4517 Troost St., erect 2-story fireproof building, Gillham Rd. and Troost Ave.

Mo., St. Joseph—Harlen Motor Co. incorporated; H. E. Tedlock, 1322 Ridenbaugh St.

Mo., Unionville—Carter Motor Co., incorporated; Allene H. Carter, Nina Shearer.

Mo., Westplains—Pierce Petroleum Corp. erect \$25,000 service station, W. Main St.; 66x25 ft., Spanish Mission type, cream stucco with glazed terra cotta trim; Fred E. Fisher, Archt.-Contr., will supervise construction.

N. C., Raeford—Hoke Motor Co., capital \$50,000, incorporated; J. D. Hobbs, Mount Holly; S. Q. McCraw, Raeford.

N. C., Wilson—Wilson Storage Battery Co., capital \$50,000, incorporated; H. C. Wilson, C. W. Stokes.

N. C., Winston-Salem—Fogle Investment Co. erect \$25,000 garage, Main St., to be occupied by Winston Motor Co.; 2 stories and basement, 41x108 ft., conc. brick.

S. C., Greenville—Palmetto Tire and Service Station, incorporated; Olin H. Spain, J. R. Flynn.

Tenn., Memphis—Mrs. Rebecca E. Randolph, Parkview Hotel, erect \$30,000 garage addition, Beale Ave.; brick, steel, 8x141 ft., 2 stories; comp. built-up roof, conc. floors; Jones & Furbringer, Archt., 110 Porter Bldg.

Tex., Austin—O. N. Norwood, Seventh and Colorado St., erect garage addition; rein. conc., stucco, built-up roof; Giesecke & Harris, Archt., 207 W. Seventh St.

Tex., Austin—Jesse J. Smith, 2800 Guadalupe St., erect garage, 1 story, 50x55 ft., brick, tile, rein. conc., cement floors, steel and asbestos shingle roof; Roy L. Thomas, Archt., 903 Littlefield Bldg.; Scott Yeamans, Contr., 108 W. First St.

Tex., Ballinger—Healer Chevrolet Co. erect \$20,000 building; stucco, tile, 80x140 ft.

Tex., Brownsville—Isom Motor Co., Inc., chartered; L. E. Oldham, R. E. Isom.

Tex., Harlingen—A. Y. Baker, Edinburg, let contract to J. S. Brown for erecting building; 75x140 ft., stucco, hollow tile, flat roof; Lloyd E. Mellor, Archt.

Tex., Houston—Metropolitan Garage Co., incorporated; J. M. Walling, 1017 Dallas St.

Tex., Lubbock—Texas Motorways, Inc., capital \$40,000, chartered; Ed. C. Abbott, A. L. Winfrey.

Tex., Martindale—Martindale Motor Co., Inc., chartered; A. H. Smith, Robert M. Harper.

Tex., Rockdale—H. T. Coulter erect building, W. Cameron St., to be occupied by Louis G. Gest; 60x110 ft., brick, conc.; steel trussed roof; William Seibert, Contr.

Tex., San Antonio—Page & Barkley erect \$18,000 garage and service station, Leona and W. Commerce Sts.; brick, 2 stories; W. B. Speegle, Contr., 531 Castro St.

Tex., San Antonio—Haines-Flagherty Tire Co., 442 Main St., let contract at \$24,890 to American Building Co., Travis Bldg., for erecting building, Lexington and Euclid Sts.; 1 story, brick, stucco; Phelps & DeWees, Archts., Gunter Bldg.; W. E. Simpson & Co., Consit. Engrs., Natl. Bk. of Commerce Bldg. 7-19

Tex., San Antonio—Hill Top Garage, 3710 W. Commerce St., let contract for garage at \$14,875 to H. A. Miller, 812 Builders Exch. Bldg.; 1 story, 62x120 ft.; L. Harrington Co., Archts.-Engrs., Builders Exchange Bldg.

Tex., San Antonio—J. A. Leppard, 3715 W. Commerce St., has low bid from W. C. Thrailkill, Real Estate Bldg., at \$14,804 for erecting garage, 3710 Commerce St.; 1 story, 62x120 ft.; L. Harrington Co., Archts.-Engrs., Builders Exchange Bldg.

Tex., San Antonio—Page & Barkley, Frio and Commerce Sts., let contract to W. B. Speegle, 531 Castro St., at \$18,000 for erecting garage and service station, W. Commerce St.; 2 stories, brick.

Tex., Texarkana—Standard Motor Co., capital \$20,000, incorporated; F. C. Brayn, R. R. Creekmore.

Tex., Wheeler—Mrs. M. Farmer plans filling station.

Va., Richmond—Davis Bros., Inc., Contr., 1716 Summit Ave., erect filling station, 14th and Franklin Sts., to be occupied by Morgan Oil and Supply Co.

Va., Richmond—Southern Motors, Inc., capital \$50,000, incorporated; James H. Price, Times-Dispatch Bldg.

Railways

Ark., Quinn—Chicago, Rock Island & Pacific Ry. Co., C. A. Morse, Ch. Engr., Chicago, applied to Interstate Commerce Comm. for permission to construct railroad extension about from Quinn, in southeasterly direction about 6 miles.

Fla., Chosen—Florida East Coast Ry. Co., H. N. Rodenbaugh, V.-Pres., St. Augustine, applied to Interstate Commerce Comm. for permission to construct 10-mile line from Chosen to west bank of Miami Canal.

Georgia—Georgia Southwestern & Gulf R. R. Co., W. M. Legg, Pres., Albany, applied to Interstate Commerce Comm. for permission to construct 4-mile extension from Raines to Armstrong.

La., Shreveport—Louisiana and Arkansas Ry., new Delaware corporation, applied to Interstate Commerce Comm. for permission to take over Louisiana and Arkansas Ry., and Louisiana Railway and Navigation Co.; new company will issue \$8,000,000 of 5% first mortgage bonds and \$4,000,000 of 5½% second mortgage bonds and exchange for stock of old corporations.

Missouri—Interstate Commerce Comm. authorized Georgia & Florida R. R., H. B. Holmes, Ch. Engr., to issue \$149,500 first mortgage 6% gold bonds, proceeds to be used to reimburse treasury for capital expenditures and to finance cost of constructing Greenwood extension.

Tenn., Memphis—Mrs. Rebecca E. Randolph, Parkview Hotel, erect \$30,000 garage addition, Beale Ave.; brick, steel, 8x141 ft., 2 stories; comp. built-up roof, conc. floors; Jones & Furbringer, Archt., 110 Porter Bldg.

Tex., Austin—O. N. Norwood, Seventh and Colorado St., erect garage addition; rein. conc., stucco, built-up roof; Giesecke & Harris, Archt., 207 W. Seventh St.

Tex., Austin—Jesse J. Smith, 2800 Guadalupe St., erect garage, 1 story, 50x55 ft., brick, tile, rein. conc., cement floors, steel and asbestos shingle roof; Roy L. Thomas, Archt., 903 Littlefield Bldg.; Scott Yeamans, Contr., 108 W. First St.

Tex., Ballinger—Healer Chevrolet Co. erect \$20,000 building; stucco, tile, 80x140 ft.

Tex., Brownsville—Isom Motor Co., Inc., chartered; L. E. Oldham, R. E. Isom.

Tex., Harlingen—A. Y. Baker, Edinburg, let contract to J. S. Brown for erecting building; 75x140 ft., stucco, hollow tile, flat roof; Lloyd E. Mellor, Archt.

Tex., Houston—Metropolitan Garage Co., incorporated; J. M. Walling, 1017 Dallas St.

Tex., Lubbock—Texas Motorways, Inc., capital \$40,000, chartered; Ed. C. Abbott, A. L. Winfrey.

Tex., Martindale—Martindale Motor Co., Inc., chartered; A. H. Smith, Robert M. Harper.

Tex., Rockdale—H. T. Coulter erect building, W. Cameron St., to be occupied by Louis G. Gest; 60x110 ft., brick, conc.; steel trussed roof; William Seibert, Contr.

Railway Shops and Terminals

W. Va., Green Spring—Baltimore & Ohio R. R., Baltimore, let contract to Frainie Bros. & Haigley, 19 W. Franklin St., Baltimore, for erecting water stations and treating plants at Green Spring and Sir Johns Run; brick and conc.

CONSTRUCTION DEPARTMENT

Manufacturers Record

Roads, Streets and Paving

In connection with LAND DEVELOPMENT large sums are expended for roads, streets, paving and sidewalks. Details will be found under that classification.

Proposed Construction

Ala., Birmingham—City Comm. plans paving Thirty-eighth St., Thirteenth Ave. to Cliff road, and from Cliff road to North roadway of Thirteenth Court, \$6450; A. J. Hawkins, City Engr.

Ala., Dothan City plans conc. on St. Andrews St.

Arkansas—State Highway Comm., Little Rock receives bids Aug. 16 for 9 roads, 6 bridges: Miller County—8 mi. gravel surface, State Highway 71, Texarkana-Louisiana State line road; Prairie County—8 mi. grading, draining, gravel surface, Highway 38, Des Arc-Cotton Plant road; Hot Springs County—19 mi. gravel surface, Highway 67, Malvern-Donaldson road; Columbia County—10 mi. grading, draining, Highway 132, Magnolia-Taylor road; Greene County—5 mi. grading, draining, Highway 34, Walnut Ridge-Greene County line road; Bridges: Pike and Howard Counties—561 ft. steel and timber bridges, Highway 70, Kirby-Dierks road; Pope County—213 ft. steel and conc. bridge, Highway 27, over Illinois Bayou; Lawrence County—377 ft. conc. and steel bridge and 546 ft. earth embankment, Highway 63, Imboden-Black Rock road.

Also in Cleveland-Dallas Counties—8½ mi. grading, draining, State Highway 167, Sec. 7 and 8, Fordyce-North road; Montgomery County—5 mi. grading, draining, Highway 6, Sec. 2, Ouachita River-Mt. Ida road; Monroe County—5 mi. grading, draining, gravel surface, Highway 3, Sec. 14, Clarendon-Marianna road; Cleveland County—1 mi. grading, Highway 15, Sec. 5, Pansy-South road; Bridges: Cleburne County—245 ft. rein, conc. deck girder bridges, State Highway 25, Sec. 2, Quitman-Heber Springs road; Woodruff County—1589 ft. treated timber pile bent bridges, Highway 16, Sec. 16, Austin-Jelks road; White County—668 lin. ft. struct. steel and treated timber bridges, 532 lin. ft. earth embankment approaches, Highway 16, Sec. 13, Pangburn-Searcy road; Dwight H. Blackwood, Chmn.

Ark., Harrison—Commrs. of Paving Dist. 4, receive bids Aug. 20 for grading, curbing, paving in district; Frank Pritchett, Dist. Engr., Little Rock.

Ark., Prescott—City, Street Improvement Dist. 6, preliminary plans to grade, drain, curb and pave about 16 blocks of streets; Lund Engineering Co., Home Insurance Bldg., Little Rock.

Fla., Florida—State Road Dept., Tallahassee, receives bids Aug. 23 for 2 construction projects on Suwannee River Scenic highway.

Fla., DeLand—Volusia County Commrs. considering State Road No. 4, Fourth Dist., Tomoka River to Daytona Beach, \$36,000. See Financial News.

Fla., Live Oak—State Road Dept., Tallahassee, receives bids Aug. 23 for 2 roads in Suwannee County: 8.57 mi. Rnd 5-A, Ichetucknee River to Suwannee River; 12 mi. Rnd 50, Live Oak south.

Ga., Summerville—City plans paving Broad St. from Commerce to Washington St. See Financial News.

La., Jena—Louisiana Highway Comm., Baton Rouge, received low bid from Chas. J. Martin, Alexandria, \$5402, for 1 mi. Jena-Nebo-Rogers Highway, LaSalle Parish.

La., Monroe—City plans widening DeSiard St. from Five Point to City limits.

La., Natchitoches—City may pave Bossier and Behan St., in Hedges Addition.

La., Opelousas—Sixth Sub-Road Dist., St. Landry Parish Police Jury plans building 23 mi. gravel road and rebuilding 7 mi. Prairie Ronde gravel road. See Financial News.

La., Rayville—City, J. J. Michen, Mayor, receives bids Aug. 25 to pave various streets, cost about \$250,000; M. L. Culley, Engr., Lampton Bldg., Jackson, Miss.

Maryland—State Roads Comm., John N. Mackall, Chmn., Baltimore, receives bids Aug. 28 for 4.74 mi. grading and drainage State Highway, Port Deposit to Conowingo Dam, Cecil County, Cont. M-17-A.

Md., Annapolis—State Roads Comm., Baltimore, received low bid from Continental Contracting Co., Knickerbocker Bldg., Bal-

timore, \$12,862, for .68 mi. conc. surface, Glenburnie-Dorsey road, Harmans.

Md., Baltimore—City, Bd. of Awards, receives bids Aug. 22 for 5700 cu. yd. grading, 2600 cu. yd. top soil on streets in Cont. 469; grade, curb and pave with 15,000 sq. yd. sheet asphalt on conc. base streets in Cont. 479; Nathan L. Smith, Highway Engr.

Md., Brunswick—City contemplates improving highway from Potomac St. to Brunswick high school over Fourth Ave.; estimated cost \$11,052; W. G. Musgrove, City Clerk.

Md., Rockville—Montgomery County Commrs., Berry E. Clark, Clk., received low bid from Raymond H. Burrows, Washington, \$10,832, macadam, \$10,999 conc. paving on Silver Spring Ave., Silver Spring; Vinton D. Cockey, Consit. Engr., Silver Spring.

Miss., Canton—State Highway Comm., Jackson, probably let contract in Oct. or Nov. to grade and drain 2 roads in Madison County.

Miss., Collins—Covington County plans completing Highway 22, Collins to Laurel; build Dist. 5 road, Laurel to Mt. Olive. See Financial News.

Miss., Lexington—Holmes County Bd. Supvrs., Beat 4, plans building roads. See Financial News.

Miss., Water Valley—Yalobusha County plans building 2 roads in Beat 4: Coffeville to Oakdale; Water Valley to Oakland.

Mo., Brookfield—City plans expending about \$70,000 to build boulevard to connect up U. S. Highway 36 through city; convert S. Main St. into Memorial Drive. See Financial News.

Mo., Cape Girardeau—City considering paving Lorimier St., Morgan Oak to North.

Mo., Pleasant Hill—City plans expending \$25,000 for conc. trafficways connecting business dist. with State Highways 7 and 48. See Financial News.

Mo., Sedalia—Pettis County, Thorleigh Special Road Dist. plans improving roads; estimated cost \$10,000. See Financial News.

Mo., St. Louis—Bd. of Public Service, E. R. Kinsey, Pres., Dept. of Streets and Sewers, receives bids Aug. 29 for alley improvement in various sections.

North Carolina—State Highway Comm., Raleigh, received low bids for 21 roads and 5 overhead crossings: Hertford-Bertie Counties—8 mi. conc., Route 80, Aulander to Ashokan, R. G. Lassiter & Co., Citizens Bank Bldg., Raleigh, \$133,501; Bertie County—8.6 mi. conc., Route 50, Roanoke River Bridge toward Windsor, Roberts Paving Co., Salisbury, Md., \$179,416; Tyrrell County—17 mi. grading, Route 90, Columbia, east, F. J. McGuire, Bankers Trust Bldg., Norfolk, Va., \$123,197; Craven County—9.3 mi. hard surface, Route 10, east toward New Bern, Ziegler Brothers Construction Co., S. Green St., Greensboro, \$190,811; Duplin County—18.3 mi. sand and asphalt, Route 24, east from Kenansville, Newell Contracting Co., Martin Bldg., Birmingham, Ala., \$246,770; New Hanover County—15.6 mi. hard surface, Route 40, Wilmington to Carolina Beach, West Construction Co., Volunteer Life Bldg., Chattanooga, Tenn., \$190,444.

In Bladen County—10 mi. sand and asphalt, Route 21, Highway Engineering and Construction Co., Selbyville, Del., \$129,762; Lee County—6 mi. top soil, Route 53, Jonesboro to Harnett County line, Beal Brothers, Bear Creek, \$28,920; structures, Hobbs-Peabody Construction Co., 1902 Dilworth Road, Charlotte, \$15,394; Orange County—4.9 mi. grading, structures, Route 54, end of hard surface at Carboro to White Cross, C. B. Hester, 1633 Spring Garden, Greensboro, \$36,550; structures, B. Field Bros., Moncure, \$13,595; Alamance County—3 mi. hard surface, Route 100, Haw River to Burlington, C. E. Hill & Son, Apex, \$25,740; Catawba County—8.41 mi. hard surface, Route 10, Belote Construction Co., 48 College St., Asheville, \$159,446; Alexander County—11 mi. top soil and structures, Taylorsville to Caldwell County line, J. H. Gibbs, Asheville, \$32,227; structures, Kiker & Yount, Reidsville, \$24,378; Cumberland County—5 mi. sand asphalt, Route 21, Fayetteville, north, R. G. Lassiter & Co., \$77,806.

In Richmond County—2.52 mi. top soil, Route 170, from intersection of Routes 75 and 170, to Richmond-Montgomery County line, Lavender Brothers, Earl, N. C., \$8702; Forsyth County—6.8 mi. hard surface, Route 65, Belews Creek to intersection with Route 60, Powell Paving Co., Wachovia Bank Bldg., Winston-Salem, \$132,212; Randolph County—6 mi. top soil, Route 61, Highway Engineering and Construction Co., \$63,351; bridges: Nash County—overhead crossing on Atlantic Coast Line, near Whitakers, grading and approaches, Gregory & Weisiger, Pittsboro, \$6834; structures, J. P. Gooch, Goldsboro, \$22,451; Gaston County—overhead bridge, Route 20; excavations, Gus Ginn, Gastonia, \$8382; structures, Hobbs-Peabody Const. Co., \$31,236; Catawba County—overhead bridge, Route 10, E. A. Wood & Co., Andrews, \$10,200.

Also in Mecklenburg and Gaston Counties, 14.05 mi. widening route 20, Porter Construction Co., \$328,544; Davidson County, 1.35 mi. top soi. on route 61, Thomasville to Randolph County line, W. C. Carter, Mebane, \$12,207; Davidson County—6.41 mi. top soil route 61, to Guilford County line, C. B. Hester, 1633 Spring Garden, Greensboro, \$25,435; Snatah County—10.24 mi. top soil route 74, Albemarle-Carrboro County line, Lee J. Smith, Flat Iron Bldg., Asheville, \$56,556; structures, C. C. Wheeler, \$43,110; Guilford County—4.29 mi. hard surface route 60, Greensboro-Julian, R. G. Lassiter & Co., Citizens Bank Bldg., Raleigh, \$62,550, structures, E. A. Wood & Co., Andrews, \$6493. 7-19

N. C., Charlotte—City contemplates paving East Sixth St. from McDowell to Long.

N. C., Charlotte—City, Marion Redd, Mayor, and State Highway Comm., Raleigh, jointly plan building 36-ft. boulevards on Salisbury, Rozelle Ferry and Pineville roads.

Okl., Muskogee—Muskogee County, W. H. Pritchett, County Clk., plans improving road. See Financial News.

Okl., Oklahoma City—City Council approved raising grade 18 in. on Exchange Ave. to conform with belt line plans of Oklahoma Railway Co.; railway company to bear cost of improvement.

Okl., Oklahoma City—City, E. M. Fry, Mgr., plans paving Seventeenth St. from Drexel Blvd. and unnamed street in Foraker Heights addition.

Okl., Pawhuska—State Highway Comm., Oklahoma City, will let contract early in Sept. for paving Barndall-Avant highway. C. R. Mandigo, State Highway Engr.

South Carolina—State Highway Comm., Columbia, receives bids Aug. 21 for 6 roads, 3 bridges, 2 culverts: Barnwell-Bamberg Counties—10.631 mi. sand clay, Route 64, Barnwell to Olar; Bamberg-Orangeburg Counties—8.609 mi. sand-clay, Route 24, Norway to Denmark; Colleton County—13.71 mi. sand-clay, Route 65, Bamberg County line to Canady's cross roads; 14.6 mi. sand-clay, Route 65, Canady's cross roads to Edisto River; Calhoun-Dorchester Counties—52.5 mi. sand-clay, Route 30, approaches to Edisto River; Dorchester County—3.34 mi. Routes 2 and 78, Harleyville-Rosinville road, Dorchester to Four Hole Swamp; Greenville County—2 rein. conc. bridges; Over Middle Saluda and North Saluda Rivers; 2 rein. conc. culverts, all on Route 284; Anderson County—overhead bridge over Southern Ry. tracks, between Belton and Honea Path.

S. C., Charleston—Sanitary and Drainage Comm., E. D. Jedvey, Engr., receives bids Aug. 16 to improve 3 roads, construct bridge: Grading, graveling Ladson road, between Ladson Station and Highway 2; Duncan road, from Owens Corner, south of Summerville to State Highway 2; gravel topping, Clements road; 70-ft. creosoted bridge over Storage Creek and approaches.

N. C., Graham—State Highway Comm., Raleigh, plans letting contract in Sept. to hard surface Route 100, between Haw River and Whitsett connection on west; Dunlop White, Res. Engr.

S. C., Fort Mill—City, Sam Parks, Mayor, plans repairing certain streets, and improving Unity Cemetery.

Tenn., Chattanooga—Dept. of Streets and Sewers, Roger Crox, City Commr., plans receiving bids soon to pave Dodson Ave. from Third and Willow Sts. across lines of Belt R. R. to Wilson Ave.; considering widening Cherry St.; W. H. Wilson, City Engr.

Tenn., Knoxville—City, Otto Roehl, Mgr., receives bids Aug. 27 to widen, extend and pave Henley street from Hill Ave. to Western Broadway intersection; 9600 lin. ft. trenching and backfilling for water mains, 26,000 sq. yd. sheet asphalt with 8 in. concrete base, sidewalks, grading and sewers.

Tenn., Nashville—City, S. H. McKay, City Clk., plans 2000 ft. curb and gutter on Ford Ave. Twenty-fifth to Twenty-eighth St.; W. W. Southgate, City Engr.

Tenn., Nashville—City, S. H. McKay, Clk., plans oiling and graveling Fourteenth St., Murphy Ave.; W. W. Southgate, City Engr.

Tenn., Nashville—City, Dept. of Highways and Public Works, considering widening First Ave., and opening and extending Hermitage Ave.; S. H. McKay, Clk.

Tenn., Union City—City contemplates expending \$10,000 to resurface streets; F. H. Reynolds, City Engr.

Tex., Anderson—Grimes County, Oscar A. Seward, Jr., County Engr., Navasota, plans 30.3 mi. surfacing Projects No. 610 A. B. & C.; gravel base and stone topping; estimated cost \$270,000.

Tex., Ballinger—Runnels County plans two 18-ft. hard surfaced roads, totaling 53 mi.: 20 mi. conc., Highway 30, Coleman County line to Tom Green County line; 26 mi. asphalt top, Highway 23, point north of Ballinger to point south of Ballinger and to Concho County line, \$525,000. See Financial News.

Tex., Brownsville—Cameron County, Oscar C. Dancy, Judge, plans 2 roads: Highway 96, from Combes to Willacy County line; Highway 100, Barreda to Point Isabel.

Tex., Canton—Van Zandt County, Love West County Judge, considering widening highway to 80 ft., from Kaufman County line to Myrtle Springs; State Highway, Austin, plans improving highway after widening.

Tex., Colorado—Panhandle-Rio Grande Highway Assn. organized; Judge Horace Holly, Pres.; M. G. Evans, Sec.-Treas., both Snyder; considering plans to improve State Highway from Canadian to Rio Grande at Del Rio or some other point on border.

Tex., Dallas—City Comm., considering widening N. Hawkins St., San Jacinto to Ross Ave., \$22,375; South Harwood St., Cadiz to Eakin; Pocahontas St. to fifty feet; plans road through Fair Park, connecting Grand and East Grand Ave.; underpass at Texas and Pacific tracks.

Tex., Dallas—Dallas County Commsr. Court, Chas. E. Gross, County Auditor, receives bids Aug. 30 for 4 mi. Buckner Memorial Blvd.; 90,000 sq. yd.

Tex., Dallas—City considering 100-ft. boulevard, on Mocking Bird Lane, White Rock to Maple Ave.; widening McKinney Ave. to 80 ft., Orange St., north; S. Ervy St., Commerce to Forest.

Tex., Fort Worth—City, O. E. Carr, Mgr., received low bids from West Texas Construction Co., 504 Cotton Exchange Bldg., to pave 3 streets: Harvey St., Evans to Epes; Hampshire Blvd., Hughes to Edgewood Terrace, \$9512; Belknap, Taylor to Royal, \$8531; from Colglazier & Huff, 125 Crosby St., San Antonio, \$16,905, to pave Ave. E, Collard to Campbell.

Tex., Fort Worth—Tarrant County Comm., Havre Wright, Commr., will let contract in Sept. to pave Camp Bowie Blvd., Sanguinet Street to west city limits, \$148,000; 8 mi. graveling and topping, Highway 10, Tarrant County line to Cresson; Damon Davis, County Engr.

Tex., Fort Worth—Tarrant County plans widening Fort Worth-Dallas Pike to 36 ft. to Dallas County line, expending about \$1,500,000 to rebuild Burleson road, Highway 2, to south; section of Grapevine road to northeast; build Jacksboro road to northwest via Lake Worth; pave Camp Bowie Blvd. to city limits.

Tex., Gainesville—Cooke County plans \$2,000,000 highway improvements. See Financial News.

Tex., Galveston—Galveston County, E. B. Holman, Judge, considering expending \$1,500,000 to improve roads, build bridge, and ferry landings: 17 mi. conc. paving, Highway 58, \$765,000; shell 25 mi. Port Bolivar beach highway, \$99,000; 38-ft. wide leaf lift span for Galveston causeway, \$300,000; ferry landings at Galveston and Bolivar, \$95,000.

Tex., Houston—City, W. A. Moore, Sec., received low bids from F. L. Scott, Route 3, Dixie Ave., \$15,133, for inverted penetration paving, Wayside Drive, Harrisburg Blvd. to Telephone Road; Harbor Paving Co., \$100,466, for all streets in Golcrest Addition.

Tex., Houston—Harris County, Norman Atkinson, Judge, received low bid from Smith & James, Houston, \$98,835 for 8.1 mi. 18-ft. macad. base, asphalt topping, Westheimer road.

Tex., Houston—City, W. A. Moore, Sec., plans paving Seventy-seventh St., Baltimore to Navigation; J. C. McVea, City Engr.

Tex., Karnes—State Highway Comm., Austin, completing survey for Highway 72 through Runge, Karnes County, connecting with Highway 16.

Tex., Palestine—Anderson County, E. H. Shelton, County Judge, plans improving road between Tucker and Tennessee Colony.

Tex., Rusk—Cherokee County, J. J. Bolton, Judge, plans letting contracts to pave 4 highways leading out of Jacksonville; also for graveling 30 or 40 mi. lateral roads in Jacksonville Dist.

Tex., San Antonio—Bexar County, Hon. Augustus McCloskey, County Judge, received

low bids from Walsh-Burney & Moore, 928 N. Flores St., at \$7380 for large, and \$4315 for small, concrete drain, Daughy Road and South Presa St.

Tex., San Antonio—See Bridges, Culverts, Viaducts.

Tex., San Antonio—War Dept., Washington, granted permit to Bexar County Comm., Augustus McCloskey, Judge, for 3 mi. road in north end of Camp Bullis near county line.

Tex., Sherman—J. G. Rollins, Res. Highway Engr., completing plans, etc., for first unit of Highway 5, Grayson County, Fannin to Cooke County, through Whitesboro; 100-ft. wide in business section; 30-ft. wide in residence section.

Tex., Shiner—Lavaca County, Road Dist. No. 4, plans improving roads. See Financial News.

Tex., Sierra Blanca—El Paso-Hudspeth County Road Dist., J. M. Walling, Judge, plans grading, bridges, conc. pavement, on 2 roads: 5.123 mi., Highway 1, Alamo Arroyo to Camp Rice Arroyo; 7.419 mi. Highway 1, El Paso County line to Alama Arroyo; F. E. Wilson, Engr.

Tex., Selma—Baylor County, N. G. Mitchell, Judge, plans \$275,000 roads. See Financial News.

Va., Richmond—City, R. Keith Compton, Dir. Public Works, plans construction 1 mi. roadway along south side Byrd Airport.

Va., Richmond—City, R. Keith Compton, Dr. Public Works, receives bids August 21 for grading, graveling, for curb and gutter on various streets in city.

West Virginia—State Road Comm., Charles-ton, receives bids Sept. 5 for 3 sections Northwestern turnpike, Mineral and Grant Counties: Mineral County—1.8 mi., stone base course; Grant County—2.7 and 4.5 mi. stone base course; B. E. Gray, Div. Engr., Keyser.

W. Va., Charleston—Kanawha County Court, W. H. O'Dell, Pres., received low bids for 5 roads: 1 mi. 14-ft. grading, draining, cement conc. paving, Harrison & Dean, Inc., 2840 Third Ave., Huntington, \$35,632, rein. conc.; 3½ mi. grade, drain, Poca River road, J. M. Cain & Co., Moore Bldg., Charleston, \$43,529, rein. conc.; 3 mi. grade, drain, Blue Creek road, J. M. Cain & Co., \$41,777; 1 mi. grade, drain, gravel, Campbell's Creek road, Venable & Farkas, Morrison Bldg., Charleston, \$14,203; 3½ mi. grade, drain, Paint Creek road, Cain & Green, Charleston, \$51,795.

W. Va., Hinton—City, Hume K. Nowlan, City Mgr., receives bids for street improvement and approaches to overhead crossing; J. E. Settle, Constl. Engr., Charleston Nat'l Bk. Bldg., Charleston, W. Va.

W. Va., Wayne—State Road Dept., Charleston, plans 6 mi. calcium chloride treatment, road from Echo to Fort Gay, Wayne County.

Contracts Awarded

Alabama—State Highway Comm., Montgomery, let contracts for 6 roads and 6 bridges: Blount County—17.31 mi. grading, draining, Oneonta to Marshall County line, W. C. McCoy, Lafayette, \$111,928; conc. bridges, \$57,827; Wilcox County—conc. and timber bridges, between Mount Willing and Camden, Jim Graham, Montgomery, \$101,471; Dallas and Lowndes Counties—conc. and timber bridges, between Benton and Selma, T. P. Wright, East Point, Atlanta, Ga., \$40,095; Winston County—22.65 mi. grading and draining, Double Springs to Cullman County line, Bessemer Engineering and Construction Co., 2109 Fifth Ave., N., Birmingham, \$184,208; Blount and Jefferson Counties—15.40 mi. cement conc., Garden City to Warrior, Hopper-Winston, Auburn, \$201,536; Fayette County—conc. and timber bridges, between Fayette and Vernon, Morgan-Hill Paving Co., Woodward Bldg., Birmingham, \$17,994; Talladega County—conc. and timber bridges, Talladega to Sylacauga, H. A. Singer, Lafayette, \$16,032; Jackson County—13.28 mi. grading and draining, between Scottsboro and Fort Payne, C. A. C. Construction Co., 116½ Orange Ave., Dayton Beach, Fla., \$232,042; conc. bridges, S. C. Cox, Clanton, \$40,840; Morgan County—conc. paving, approach to Keller Memorial Bridge, on outskirts of Decatur, City of Decatur, \$6438.

Ala., Clanton—State Highway Comm., Montgomery, let contract to W. C. McCoy, Lafayette, \$164,366, for 16.43 mi. grading, draining Coosa-Chilton Counties, Rockford to Verbena; Jim Graham, Montgomery, over \$15,000 for conc. and timber bridges.

Ark., Fayetteville—Winstead & Gunther, Siloam Springs, have contract to grade and drain Prairie Grove-Cane Hill Highway.

Ark., Hardy—Hinson Bros., Muskogee, Okla., have contract for 5 mi. National Highway 63, between Hardy and Williford.

Ark., Magnolia—City let contract to McGuire & Cavender, Texarkana, \$99,404, to pave with 6-in. rein. conc., curb and storm sewers, on East and West Main, and S Washington St.

Ark., Prescott—W. L. Britt and R. E. DeLaughter, Boughton, have contract to grade 8 mi. State road from Prescott, Nevada County, to Camden, Ouachita County.

D. C., Washington—Dist. Commsr. let contract to Corson & Gruman, Thirty-third and K St., N. W., \$14,000 to resurface Highway Bridge with sheet asphalt; Alan Wood Iron and Steel Co., Widener Bldg., Philadelphia, for iron traffic treads for bridge.

7-26

Fla., Daytona Beach—C. K. Barnhart Construction Co., 141 George St., has contract, \$12,234, to pave Atlantic Ave., Daytona Beach, as link in St. Augustine to Ponce de Leon inlet Blvd.

4-26

Fla., Fernandina—City Commsr., E. L. Wolff, Auditor and Clk., let contract to Manly Construction Co., Ocala, \$82,155, for 55,000 sq. yd. double surface treatment, on 7-in. lime rock base paving; conc. curbs and gutters.

6-28

Fla., Tavares—City let contract to P. F. Connelly Paving Co., 206 S. Franklin St., Tampa and Pensacola, \$66,726, for 337,000 sq. yd. slag double surface treatment paving.

Kentucky—State Highway Dept., Frankfort, let contract for 8.789 mi. surfacing Mt. Sterling-Frenchburg road, Montgomery County, to R. B. Tyler Co., 114 S. Fourth St., Louisville, Ky., \$54,181.12.

Ky., Paducah—McCracken County Road Comm. let contracts for graveling 13 roads totaling 20 mi.: Bradshaw road, R. T. Baldry; Wren road, W. A. Miller; Ghoson road, L. V. Marberry, McNeal and Burkhardt road, J. R. Keeling; Babe Anderson road, J. E. Johnson; Reildand road, E. L. Burger; Blandville and Florence Station road, W. A. Thompson; Moore, Old Mayfield, Blandville, Sheehan Bridge roads, to E. L. Beyer, R. F. D. 1; Jack Thompson road, A. J. Thompson.

Louisiana—State Highway Comm., Baton Rouge, recently awarded contract to McWilliams Dredging Co., 73 East Wacker Drive, Chicago, and New Orleans Bk. Bldg., New Orleans, for hydraulic fill in St. Charles Parish, Project No. 156-B-2, Hammond-New Orleans Highway; 5.5 mi. borrow pit between two levees, total amount of fill approximately 2,100,000 cu. yds.

La., Bastrop—Morehouse Parish Police Jury, J. W. Brodnax, Pres., let contracts for 2.5 mi. 24 ft. gravel road to Harvey & Jones at \$7000 and Monroe Sand Gravel Co., Ouachita Natl. Bank Bldg., Monroe, \$8000 for gravel.

7-19

Md., Baltimore—City, Bd. of Awards let contracts for paving: Contract No. 472, P. Flanigan & Sons, Harford Ave. and 25th St., at \$40,136.25; Contract No. 473, Potts & Callahan, Knickerbocker Bldg., at \$33,000; Contract 475, Ward & O'Connel, 3114 Presbury St., at \$26,981.55; Contract No. 476, American Paving and Cont. Co., Montebello Ave. and Jenkins Lane, at \$48,885.65.

7-19, 8-2

Md., Baltimore—Bd. of Awards, Charles F. Goob, Ch. Engr., let contract to Mahoney Bros., 1111 Rutland Ave., \$26,433 for 10,550 sq. yd. 7-in. conc. paving on Evergreen, Bayonne and Powell Ave., 8450 l.n. ft. unarmored curbing, 4400 cu. yd. grading.

7-26

Miss., Lexington—Holmes County Bd. Supvrs. let contract to Standard Highway Co. Inc., Hammond, La., at \$45,000 for highway from Lexington to Beat 3 line.

Miss., Vicksburg—City, J. W. Hossley, Mayor, let contract to V. T. Zollinger, Vicksburg, \$37,000, for paving 15 blocks Clay St. Extension, curb and gutter.

7-19

Mo., Independence—Park Bd. let contract to resurface Independence Boulevard from Benton Boulevard to Admiral Boulevard in Kansas City, to Hoover Brothers Construction at \$62,440.

Mo., Sedalia—Pettis County, T. O. Stanley, Highway Engr., let contract to gravel 3 sections of road, totaling 16 mi., Hughesville Special Road Dist. to Bertman & Menefee, \$52,000: From south line of dist. through Hughesville to north line of Hughesville township; town of Hughesville to State Highway 65; 4 mi., from line south of Hughesville to Phillips corner.

Mo., Springfield—City, C. A. Dickerson, Clk., let contract to W. E. Fogerson, 712 E. Elm St., \$1.87 per sq. yd. for paving, and 25 cents per foot for curbing, Florence Ave., Grand St. south; Edgar V. Koch, 68 cents per foot, for walk on Summit Ave.; H.

Proserpi, 1220 N. Campbell St., 70 cents per foot for walks on Fort Ave.; 88 cents per foot, for curbing and guttering, Kentwood Ave.

Mo., University City, Branch St. Louis-City, E. B. Colby, Clk., let contract to Clyde Isreal, 2424 Oakland Ave., Overland, Mo., to improve Sixty-sixth St., Olive Blvd., to Chamberlain Ave.; to Independent Asphalt & Construction Co., 5523 Manchester Ave., to improve Central Ave., Delmar Blvd. to Southern city limits line.

Okla., Okeene—City, S. G. Fox, Clk., let contract to Dick & Harbert, Inc., Oklahoma City, \$42,595, for 14,710 yd. conc. paving.

Okla., Tulsa—City Comm. let contract to Standard Paving Co., 1742 E. Sixth St., to widen Maybell Ave., Seventh to Eleventh; H. L. Cannady Co., 1116 S. Lewis St., \$46,287 to pave Evanson, Deleware Place and Ave., Florence Ave. 8-24

Tenn., Chattanooga—Hamilton County let contract to Southern Paving Construction Co., Volunteer Life Bldg., at \$18,279, for asphalt paving, Ringgold road from Main St. through Missionary Ridge; \$17,380, for Ringgold in corporate limits.

Tenn., North Chattanooga, branch of Chattanooga—City, W. S. Beck, Mayor, let contract for curbs, gutters and sidewalks to Harold Crouch, James Bldg., Chattanooga, Tenn., at \$65,000.

Tex., Abilene—Southwest Bitulithic Co., 302 Castro St., San Antonio, has contract for 10 1/2 mi. conc., Highway 1, Bankhead Highway, from Abilene city limits to point west of Merkel. 6-21

Tex., Dallas—City Comm. let contract to Smith Bros., Inc., Santa Fe Bldg., to pave Forest Ave., from H. & T. tracks to Trinity River; Marburg and Parry Ave.

Tex., Donna—City let contract to Brooks Construction Co., \$250,000, for paving and water works extensions and replacements.

Tex., Grand Prairie—City, G. H. Turner, Mayor, let contract to N. M. Pickle, Grand Prairie, to pave Center St., from business section, across railroad and interurban tracks to new Jefferson Ave., 75-ft. wide, 12-ft. sidewalk on each side; cost \$15,000.

Tex., Houston—City Council let contracts for paving all streets in Golfcrest addition to Harbor Paving Co. at \$100,462.

Tex., Houston—Scott Schambaugh has contract to pave western half North McGregor Drive, between Hermann Park at Almeda road gateway, to Riverside Terrace.

W. Va., Harrisville—Ritchie County Court let contract to Phillips, Withers & Buckhannon, \$31,231, to grade Pennsboro-Josephs Mills road, State Route 74, McCullough Bridge to Tyler County line.

W. Va., Lewisburg—Greenbrier County Court let contract to G. H. Lynch, Alvon, \$72,000, for 6 projects in Irish Corner Dist.

Sewer Construction

Sewer construction in LAND DEVELOPMENT projects involves the expenditure of large sums of money. Under that classification details of these improvements are reported.

Ala., Georgiana—Town let contract to J. B. McCrary Co., Atlanta, Ga., for \$40,000 sanitary sewer system. 7-26

Ala., Holeyville—Town receives bids Aug. 24 for sanitary sewers. See Want Section—Bids Asked.

Ark., Fort Smith—City will lay sewer pipe; will purchase pipe and other equipment from American Cast Iron Pipe Co., Scarritt Bldg., and W. S. Dickey Clay Mfg. Co., N. Y. Life Bldg., Kansas City, Mo.

Ark., Sheridan—Sewer Imprv. Dist., No. 1, has preliminary survey by Frank R. Allen, Engr., Pine Bluff, for sanitary sewer system, laterals and disposal plant. 8-9

Fla., Tampa—City, Roy H. Cason, Engr., plans sewer in Seminole Heights, soon call for bids.

Md., Baltimore—Bd. of Awards receives bids Aug. 22 for sanitary and storm sewers. See Want Section—Bids Asked.

Miss., Lucedale—Bd. of Alderman has plans by Morgan & Co., Engrs., Jackson, for sewer system and drainage structures.

Miss., McComb City—See Water Works.

Miss., Vicksburg—Vicksburg Lumber Co. has contract to furnish sanitary sewer pipe and B. J. Robinson Foundry and Machine

Works, Mulberry St., for castings for manholes and catch basins. 4-28

Mo., DeSoto—City has plans by Chas. A. Haskins, 822 Finance Bldg., Kansas City, Consrt. Engr., for sewers.

Mo., Kansas City—Jackson County Sewer Dist., No. 1 has plans for sewers in Mt. Washington, Englewood, Fairmount and vicinity; cost \$987,185; Wm. B. Midyette, Mt. Washington, Sec., Bd. of Supvrs.

Mo., Springfield—E. V. Koch, 2001 Bird St., Joplin, has contract for sewers in Dist. No. 7. 7-26

Mo., Springfield—City will probably vote in fall on \$125,000 bonds for storm sewers; Russell & Axon, 1945 Ry. Exch. Bldg., St. Louis, Consrt. Engrs. 7-26

Mo., St. Joseph—Judson Engineering and Construction Co., 1811 Farson St., has contract for sewer in Dist. No. 176.

Mo., Troy-Hogle and March, Jefferson City, and Muskogee, Okla., has contract at \$40,242 for sanitary sewers.

N. C., Marshall—Bd. of Aldermen construct sewer line and extension to water supply system.

Okla., Tulsa—City Commsn. accepted plans by B. M. Hart, City Engr., for storm sewers to serve Braniff, Glenn Acres, Glendale, Hickory Manor, etc.

S. C., Greenville—Poe Construction Co., Capers Bldg., has contract for laying 2 miles sewer lines in North Gates Height tie into Greater Greenville system.

Tex., San Juan—City plans \$75,000 sewer system; A. A. Martyn, Sec.

Va., Richmond—R. Keith Compton, Dir. Public Works, let contract to Van Doren Brothers at \$86,973 for Noble Ave. sewer system in Gunter Park.

W. Va., Princeton—City has had preliminary plans prepared for sewage disposal plant; cost \$50,000. 5-17

Telephone Systems

Ga., Quitman—George M. Forman & Co., 11 W. Adams St., Chicago, acquired Quitman Telephone Co.

Tenn., Nashville—Southern Bell Telephone and Telegraph Co., Atlanta, Ga., J. H. Baker, Dist. Mgr., erect 2-story addition to building, Church St. and Third Ave.; cost \$95,000.

Textile Mills

Ga., Commerce—A. D. Harris, Pres., Commerce Mfg. Co., reported, plans erecting silk and rayon mill.

Ga., Rome—Hughes-Foulkrod Co., 421 Seventh Ave., Philadelphia, Pa., has general contract for first group of buildings for American Chatillon Corp., Room 1115, 393 Seventh Ave., New York; construction to begin immediately; contract includes cotton storehouse, 2 chemical buildings, power house, machine shop, filter plant, large 1 story shed building for producing acetate yarn and installation of outside sewers and drainage system; buildings included in this group cover half floor space of plant; plans for other buildings will be completed shortly; Lockwood Greene Engineers, Inc., 100 E. 42d St., New York. 8-9

Ga., Tifton—Walker Electric & Plumbing Co., 111 12th St., Columbus, has contract for electrifying Tifton Cotton Mills.

N. C., Burlington—E. M. H. Knitting Co., capital \$25,000, incorporated; Lyn B. Williamson, J. M. Lowler. 7-12

N. C., Charlotte—Jass Bros., Inc., Decatur St., Atlanta, Ga., and 6239 Spruce St., Philadelphia, Pa. (manufacturers of textile novelties), completed excavation work on plant on N. Tryon St.; first unit 2 story, 163x54 ft., with 40,000 sq. ft. floor space; soon begin construction on second unit, 2 story, with 20,000 sq. ft. floor space; install sprinkler system; cost of both plants \$120,000; cost of machinery, \$100,000.

N. C., Charlotte—Hudson Silk Hosiery Co., Inc., let contract to Otis Elevator Co., Commercial Bk. Bldg., Charlotte, for freight elevator.

N. C., Coleridge—Enterprise Mfg. Co. will install 2000 spinning spindles, 832 twisting spindles, 30 winder spindles; manufacture warp twist yarns.

S. C., Gaffney—Park Mfg. Co., Dillon St., Charlotte, N. C., has contract for electric freight elevator for Gaffney Mfg. Co.'s plant. 7-19

S. C., Goldville—Following contracts let for 3-story addition to Joanna Cotton Mills; Fiske-Carter Construction Company, Masonic Temple Bldg., Greenville, Gen. Contr.; grading to R. G. Lackey, Spartanburg; furnishing and erecting struc. steel, Carolina

Steel and Iron Co., Greensboro, N. C.; sash and glazing work, William Bayley Co., Springfield, Ohio; Lockwood Greene Engineers, Inc., Spartanburg. 7-5

S. C., Spartanburg—Drayton Mills let contract to The William Bayley Co., Springfield, Ohio, for sash and glazing for \$250,000 weave mill addition; Lockwood Greene Engineers, Inc., Charlotte, N. C. 6-28

S. C., Spartanburg—Yarns Corp. of America let contract to Park Mfg. Co., Dillon St., Charlotte, N. C., for freight elevator; Grinnell Co., Inc., 30 E. Fourth St., Charlotte, N. C., for sprinkler system for mill; Lockwood, Greene & Co., Engrs., Greenville. 7-20

S. C., Spartanburg—Harrison-Wright Co., 4 W. Third St., Charlotte, N. C., has contract for electric lighting and power wiring for plant of Yarns Corp. of America, 40 W. 20th St., New York City; Lockwood, Greene & Co., Engrs., Charlotte, N. C. 4-19

Tenn., Dyersburg—Robert & Co., Inc., Atalanta, Ga., Archts., and Engrs., will release plans on 18th and let contract Aug. 30 for mill for Dyersburg Cotton Products Co.; equipment will consist of 20,000 spinning spindles and 1000 knitting machines and complete dye and bleach house; 275,000 sq. ft. floor space; cost about \$2,500,000. 7-19

Tenn., Sparta—Welwood Silk Mills, Inc., 2 Park Ave., New York, establish 163 loom silk mill.

Va., Covington—Industrial Rayon Corp., 95th St. and Walford Rd., Cleveland, O., reported, let contract to Fiske-Carter Construction Co., Worcester, Mass., and Masonic Temple Bldg., Greenville, S. C., at \$1,250,000 for storage warehouse, main manufacturing plant and power plant; Virginia Bridge and Iron Co., Roanoke, Va., contract for 1500 tons struc. steel; J. E. Sirrine & Co., Engrs., Greenville, S. C. 8-2

Va., Strasburg—Flemingo Silk Mfg. Co., capital \$20,000, incorporated; Fred W. Bertschinger, Strasburg; Jack Ross, 135 W. Kingsbridge Road, New York City.

Va., Waynesboro—Further negotiations under way by Du Pont Rayon Co., Inc., 32nd St. and 4th Ave., New York, pending acquisition site for cellulose acetate plant. City Council voted to convey to company a part of Lithia Park and spring on park on condition that town should have use of water or period of 5 years; also voted to close all streets and alleys in area secured for development of plant and to deed to company town's riparian rights along river at point affecting plant's development. 6-21

W. Va., Burnsville—J. W. Roach and associates plan establishing weaving mill.

Nathan & Cohen Co., 60 Leonard St., New York, owners of New Bedford Silk Mills, New Bedford, Mass., reported, planning erection of rayon fabric plant; investigating sites in North and South Carolina.

Water Works

Details of water works improvements in connection with the many LAND DEVELOPMENT operations will be found under that classification.

Ala., Gadsden—City install 10-in. water pipe on bed of Coosa River to supply East Gadsden.

Ala., Mobile—Bd. of Commrs. receive bids Sept. 4 for installation of mains and accessories. See Want Section—Bids Asked.

Fla., Coconut Grove, P. O. Miami—City has low bid from A. W. Landers, 1737 N. W. 49th St., for water system.

Fla., Daytona Beach—City contemplates voting on \$400,000 water expansion bonds; Metcalf & Eddy, Boston, Engrs.

Fla., Hialeah—City of Miami receives bids Aug. 27 for 3 additional wells, 1 steel tank, 30x21 ft.; laying (by city) of Redwood pipe line; alternate bids for 60x60 ft. or 120x120 ft. Dorr basin.

Fla., Miami—J. J. Quinn Co., 116 N. E. 29th St., Miami, low bidder for high pressure mains Ft. Dallas Park.

Fla., New Smyrna—City will vote soon on sale of water and light plants.

Ga., Augusta—City plans extending 8-in. water mains from city limits to provide water for Babcock & Wilcox Co.'s refractory plant; O. L. Dobson, Chmn., Water Committee.

Ga., Valdosta—City having survey of water plant made by M. T. Singleton, Consrt. Engr., Atlanta; install electrically operated equipment.

Ky., Louisville—Louisville Water Co. plans pipe line extensions on various streets.

La., Mansfield—Town let contract to H. M. Silver, Mansfield, at \$14,180 for extension to water system; J. S. Ament, Engr. 7-19

La., Pisgah—City votes Aug. 17 on water bonds.

Miss., McComb City—City plans issuing \$20,000 bonds for sewer and water extensions. 5-31

Mo., Kansas City—City defeated \$3,500,000 water works bonds. 6-28

N. C., Marshall—See Sewer Construction.

Okla., Oklahoma City—City let contract to Crane Co., 701 W. Main St., and Jordan Supply Co., for galv. iron pipe and fittings.

Tenn., Dayton—City plans construction of water system consisting of series of dams in Richland Creek, install modern gravity filtration system and water chlorinator.

Tenn., Jackson—Commr. Public Utilities, R. E. Franklin, receives bids Sept. 11 for deep well. See Want Section—Bids Asked.

Tenn., Lafollette—Tennessee Electric Power Co., Chattanooga, plans constructing \$20,000 filtration plant and 150,000 gal. reservoir.

Tex., Big Springs—Town plans voting on bonds for water works.

Tex., Dallas—City receives bids Sept. 7 for water purification plant and for pumping equipment. See Want Section—Bids Asked.

Tex., Donna—See Roads, Streets, Paving.

Tex., Graham—City receives bids Aug. 23 for water supply. See Want Section—Bids Asked.

Tex., San Benito—Central Power and Light Co., Frost Natl. Bank Bldg., San Antonio, construct \$16,000 elevated water tower; also garage.

Tex., Stinnett—City votes Sept. 8 on \$37,000 water works bonds. 5-31

Va., Roanoke—Roanoke Water Works Co. will lay water line through Main St., Wassen, to connect with feeder line on Brandon Rd.; install booster pump in Weaver Heights.

Woodworking Plants

Tex., San Benito—Valley Box and Crate Factory increased capital from \$50,000 to \$300,000.

Va., Pulaski—Coleman Furniture Co. and Pulaski Furniture Co. merged; to be known as Coleman Furniture Corp., capital \$1,000,000 to \$2,000,000; T. C. Coleman, Pres.

FIRE DAMAGE

Ark., Crystal Springs—School. Address School Bd.

Ark., Stuttgart—Mrs. Celia Wilson's country residence near Stuttgart.

Ga., Barnesville—Barn at Sixth District A. & M. School; T. O. Calloway, Principal.

Ky., Paintsville—F. S. Anhause Lumber Co.'s plant at Bridgeport, one mile from Paintsville; loss \$75,000.

La., Opelousas—Daniel Lumber Co.'s plant, W. Landry St.

La., Selma—Grant Timber & Mfg. Co.'s planing mill; loss \$200,000.

Md., Easton—Geo. Parks' paint store, S. Washington St.

Mo., Carthage—Morrow-Kidder Milling Co.'s flour mill; loss \$100,000.

N. C., Norwood—Norwood Lumber Co.'s plant; loss \$25,000.

Tenn., Nashville—Farris Hardwood Lumber Co.'s plant, 22 Ave. and Clifton Road; loss \$175,000; Alfred C. Farris, Pres.

Tex., Dallas—Jacob E. Decker & Sons Sales Co.'s building, 2227 Griffin St.; loss \$25,000.

Tex., Yorktown—Julius B. Korth's residence, Meyersdale community near Yorktown.

Va., Lynchburg—Oakwood Country Club; loss \$20,000.

W. Va., Bridgeport—Dillon Salt Refinery Co.'s building, 109 Lincoln Ave.

W. Va., Weirton—Building housing Weirton Times; H. C. Ogden, owner, 1500 Main St., Wheeling.

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

Tex., Dallas—Young Men's Christian Assn., Edw. T. Moore, Chmn., Bldg. Comm., erect \$800,000 central bldg., N. Ervy St. near Federal St.; also erect \$50,000 boys' club, \$150,000 branch building west of Trinity River, and \$175,000 negro branch; funds available. 2-16

W. Va., Welch—Independent Order of Odd Fellows, A. P. Walker, member, erect \$40,000 to \$50,000 lodge bldg., McDowell St.; brick, 3 stories, self-operated elevator; 3x110-ft. store on first floor, lodge rooms on second, 2 offices and 2 apartments on third; M. A. Watkins, Archt.

Bank and Office

Ala., Birmingham—John G. Farley, 2513 Arlington Ave., and E. R. McDavid, 2 N. 21st St., repair office bldg.; \$10,000.

Ala., Jackson—Jackson Bank and Trust Co. having plans for \$12,000 bank building, Commerce St., drawn by Scott & Petres, Archts., Staples-Powell Bldg.; Spanish or Spanish Mission type. See Want Section—Building Material and Equipment. 6-28

La., Houma—A. M. & J. C. Dupont erect rein. conc., brick and stone trim bank and bus bldg., Main and Barrow Sts.; 1 story, 110x100 ft., terrazzo and cement floor, comp. roof, metal ceilings and sash; Favrot & Livaudais, Ltd., Archts., Hibernia Bk. Bldg., New Orleans; ready for bids in few days.

La., New Orleans—Following contractors estimating on 21-story bank and office building for American Bank and Trust Co., bids Sept. 4: John Riess, N. O. Bank Bldg.; O. M. Gwin Construction Co., Union Indemnity Bldg.; Geo. J. Glover Co., Inc., Whitney Bank Bldg.; R. P. Farnsworth & Co., Maritime Bldg.; C. A. D. Bayley & Co., Interstate Bank Bldg., all New Orleans; Selden-Breck Construction Co., Fullerton Bldg., St. Louis, Mo.; Moise H. Goldstein, Archt., Hibernia Bank Bldg., New Orleans. 8-9

Md., Chestertown—Chestertown Bank of Maryland erect \$100,000 bank building.

Tenn., Knoxville—Fidelity Trust Co., Gay St., M. D. Arnold, Pres., 428 S. Gay St., may erect building.

Tenn., Knoxville—Holston National Bank erect 2 additional floors to 12-story bldg.; \$75,000.

Tex., Galveston—American National Insurance Co. let excavation contrac' for 11-story office building to J. W. Woodruff; piling, 312 piles, Raymond Concrete Pile Co., 140 Cedar St., New York; receiving superstructure bids; structure fireproof, steel frame, rein. conc., brick, stone, American type; 2 sides of cream colored velour brick; 43x120x84 ft., L shape, water and elect. plant for new and present structures, 3 elevators; Andrew Fraser, Archt., Amer. Ins. Bldg. 7-12

Tex., San Antonio—Herff & Jones, Archts., 215 W. Commerce St., are drawing plans for 1-story bldg. to connect San Antonio National Bank and San Antonio Loan & Trust Co. bldgs.; stone, about 30x12 ft.

Churches

Ala., Bessemer—Hueytown Methodist Church, E. R. Bonham, member, Bldg. Comm., plans \$20,000 building, Hueytown Crest.

Ala., Jackson—Scott & Peters, Archts., Staples-Powell Bldg., Mobile, drawing plans for church. See Want Section—Building Material and Equipment.

Ga., Albany—First M. E. Church, South, receives bids Sept. 12 for remodeling and enlarging church and erecting 30x28-ft. Sunday school; English type, rein. conc., brick and Indiana limestone, cathedral glass windows, terrazzo and hardwood floors, slate roof, 8 assembly rooms, 40 classrooms, kitchen, library, etc.; \$125,000; Dunwoody & Oliphant, Archts., 460 Broadway, Macon. 7-5

Ga., Atlanta—Central Methodist Church, Colored, Rev. Mr. Moore, Pastor, erect brick bldg., W. Mitchell St.; comp. roof; probably day labor.

La., Crowley—Secretary, Bldg. Comm., Presbyterian Church receives bids Aug. 29 for rein. conc., brick and stone trim bldg.; \$75,000, rein. conc. foundation, struct. steel and iron, wood floors, slate roof, low pres-

sure heating system; Wm. T. Nolan, Archt., Canal Bk. Bldg., New Orleans.

La., Independence—Baptist Church receiving bids for brick building; \$18,000, rein. conc. foundation, slate roof; J. Howard Ryan, Archt., Summit, Miss.; Mr. Valadie, Asso. Archt., Hammond, La.

Miss., Fondren—Millsaps Memorial Church plans \$50,000 building. Address The Pastor.

Miss., Hattiesburg—Central Christian Church, Rev. Geo. B. Whipple, Pastor, plans building, Hardy and Mamie Sts.

N. C., Matthews—Baptist Church, Capt. T. J. Renfrow, member, Bldg. Comm.; Rev. L. R. Pruet, Pastor, plans \$30,000 brick bldg.; auditorium seat 500, 12 classrooms.

Tex., Edna—Baptist Church, Rev. M. C. Moore, Pastor, erect \$7500 to \$10,000 frame bldg.; auditorium, classrooms.

Tex., Houston—St. Paul's Methodist Church, Rev. J. N. R. Score, Pastor, have plans ready in few days for \$600,000 bldg., Calumet Dr., Main, Fannin and Rine Sts.; call for bids and probably open bids Sept. 1; modified Gothic type, probably brick with stone trim, fireproof Sunday school section, 135-ft. tower, tile roof; stage; Alfred C. Finn, Archt., Bankers Mortgage Bldg. 8-2

Tex., San Antonio—Christ Church erect rein. conc., brick and cast stone parish house, Belknap Place; 1 story and basement, about 43x75 ft., auditorium, classrooms; John M. Marriott, Archt., Frost Bldg.

City and County

Ala., Birmingham—Jefferson County Court House Comsn., Oscar Wells, Pres., W. E. Henley, Vice-Pres., having plans drawn by Holabird & Root, Archts., 333 N. Michigan Ave., Chicago, Ill., and Harry B. Wheelock, Asso. Archt., Steiner Bldg., Birmingham, for \$3,000,000 to \$3,250,000 courthouse, Capitol Park; plans will be completed about Nov. 1 and sent out for bids at that date, to be opened about 6 weeks later; fireproof, 8 or 9 stories, about 185x300 ft. 4-22-26

Ala., Vernon—Lamar County Bd. of Revenue erect \$30,000 jail; D. O. Whilldin, Archt., Birmingham; bids in.

Fla., Orange City—Town, E. B. Alling, Mayor, receives bids Aug. 20 for Colonial town hall; hollow tile, common and face brick, 2 stories, 30x45 ft. with 12x24-ft. wings, metal columns, asbestos shingle roof, wood and cement floors, \$15,000; Elton J. Moughton, Archt., Sanford.

Ga., Atlanta—City Council, Councilman Raleigh E. Drennon, Chmn., Library Comm., has preliminary sketches given by G. Lloyd Preacher & Co., Inc., Wynne-Claughton Bldg., for addition to Carnegie Library, Forsyth St. and Carnegie Way, and for branch libraries; Council may call election Dec. 5 on bonds, including \$350,000 for library improvements. 7-14

La., Lake Charles—City, Harry J. Geary, Mayor, receives bids Aug. 20 for grandstand and fencing, east of high school; plans from W. Phillips, Archt.-City Bldg. Inspector.

La., New Orleans—City, A. S. Montz, City Archt., City Hall Bldg., call for bids about 30 days for stone tile and face brick stable, Sixth and Saratoga Sts.; \$15,000, 1 story, 75x95 ft., rein. conc. foundation, steel arch, steel and iron work, asbestos roof.

Md., Hancock—Hancock Fire Co. erect fire station, High St.

Oka., Newkirk—City voted \$35,000 community bldg. bonds; auditorium, kitchen, stage. Address The Mayor.

Tex., Houston—City, W. A. Dowdy, City Archt., considers erecting two \$16,000 sub-police stations and Fire Station No. 25; latrine at Paige and Bell Sts., \$12,000, brick veneer.

Va., Wytheville—Wythe County Bd. of Suprs. erect jail.

W. Va., Clarksburg—Harrison County defeated \$750,000 courthouse bonds. 7-26

Dwellings

D. C., Washington—P. H. Willis, 3903 Alton Pl., N. W., erect 2 brick dwellings, 4811-15 Reno Rd., N. W.; 2 stories; \$16,000.

CONSTRUCTION DEPARTMENT

Manufacturers Record

D. C., Washington—A. B. Heaton, Archt., 1211 Connecticut Ave., N. W., has drawn plans for \$100,000 dwelling, 4610 Forty-second St., N. W.

D. C., Washington—D. C. Gruver, 927 Fifteenth St., N. W., erect 8 dwellings, 3834-48 Beecher St., N. W., after plans by Geo. T. Santmyers, Archt., 917 15th St., N. W.; brick and tile, 2 stories; \$40,000. 9-9

D. C., Washington—Frank R. Jelleff, 1216 F St., erect \$38,000 residence, 2439 Wyoming Ave., N. W., after plans by T. J. D. Fuller, 2317 Ashmead Place, N. W.; brick and tile, 2 stories. 8-9

D. C., Washington—Dr. S. A. Alexander, Rochambeau Apt., erect \$20,000 stone residence, 4851 Indian Lane, N. W., after plans by A. B. Heaton, Archt., 1211 Connecticut Ave., N. W.; 3 stories. 8-9

D. C., Washington—C. S. Duncan, Transportation Bldg., erect \$17,000 residence, 2871 Audubon Terrace, N. W., after plans by Horace W. Peaslee, 1228 Connecticut Ave., N. W.; tile, 2 stories. 8-9

D. C., Washington—Wm. A. Hill Co., 730 Seventeenth St., N. W., erect \$70,000 residence, dwelling, 2829 Woodland Drive, N. W., after plans by J. J. Whalen. 8-9

D. C., Washington—Jas. E. Cooper, 1417 K St., N. W., completed plans for \$30,000 dwelling, 7914 Orchid St., N. W.

Fla., Everglades—Valmont Corp., J. F. Jaudon, Vice-Pres., 406-10 Seybold Bldg., erect number farm and employees' dwellings, connection with development in Collier County at head of Turner River.

Fla., Miami—Wm. I. Phillips, 26 Biscayne Blvd., call for bids about Oct. 1 for residence, 89th St. and E. Dixie Highway; hollow tile and frame, 2 stories, 40x45 ft., hardwood and rubber floors, conc. foundation, Cuban tile roof, \$12,000; Nieder & Seiler, Archts., 321 Calumet Bldg. 8-9

Ga., Atlanta—J. F. Evans, 57 Lafayette Drive, N. E., erect \$35,000 residence, 1034 Virginia Ave., N. E.; brick veneer, 2 stories.

Ga., Atlanta—Richard Long has low bid for face brick residence, Dunwody Rond, N. W., from Gilbert Beers. Bonn Allen Bldg.; 1 story and basement, 65x15 ft., garage and servants' quarters; Burge & Stevens, Archts., 101 Marietta Bldg.

Ga., Shannon—Brighton Mills erect 25 operatives' cottages; 3, 4 and 5 rooms, frame; Robt. S. Fiske, Engr., Healey Bldg., Atlanta; bids in.

La., Baton Rouge—Chas. P. Mansfield, 230 St. Anthony St., receives bids Aug. 30 for hollow tile, brick and cast stone trim residence; 2 stories, rein. conc. foundation, oak floors, tile roof, vapor steam heat; Lewis A. Grosz, Archt., New Reymond Bldg.

La., New Orleans—R. H. Mackenroth, 4433 Canal St., erect duplexes, Pershing near Prieur and Claiborne near Carrollton Sts.; asbestos roofs; \$20,000.

La., New Orleans—F. Pipes, 341 Carondelet St., erect residence, Metairie Club Gardens; Moise H. Goldstein, Archt., Hibernia Bank Bldg.

La., New Orleans—John Davidson, 8500 Marks St., erect 2 double dwellings, Leonidas St. near Marks St.; 24x40 ft., asbestos roofs; \$10,000.

La., Shreveport—I. Rosenfield, 640 Ratcliff St., erect \$13,500 residence, Unadilla St., South Highlands; 2 stories; Seymour Van Or, Archt., Merchants Bldg.; bids Aug. 13.

Md., Baltimore—Thos. J. Tingley, Munsey Bldg., erect residence, Tunbridge Rd. near St. Albans Way.

Md., Baltimore—Rignal W. Baldwin, 16 E. Lexington St., erect \$17,500 residence, 32 Charlotte Road; brick, 2½ stories.

Md., Baltimore—John L. Tregallas, Inc., 10 E. Fayette St., plans 8 bungalows and cottages, Regester Ave. and Murdock Road, Anneslie.

Md., Baltimore—D. J. Locke, 4400 Kirkland Ave., erect residence, 323 Broxton Road, Homeland.

Mo., Clayton, St. Louis—C. J. Gerling, 1508 Kienlen St., erect 11 brick dwellings, Mayfair Park; 25x30 ft.; \$27,500.

N. C., Charlotte—Sherrill Realty Co., 25 W. Fourth St., erect \$15,000 brick veneer dwelling, 632 Berkley Ave.; 2 stories; also \$4000 one-story frame dwelling, 421 Lombardy Circle.

N. C., Charlotte—E. S. Reid, Builders Bldg., erect \$10,000 residence, 233 Wesley Ave.; brick veneer, 2 stories.

N. C., Charlotte—W. L. Nicholson, 140 Brevard Court, erect \$10,000 dwelling, 16 Conniston Place; also \$10,000 duplex, 2309-11 Greenway St.; 2 stories, brick.

N. C., Charlotte—W. D. Clark erect \$11,000 residence, 1717 E. Moreland St.; brick, 2 stories.

N. C., Winston-Salem—S. W. Morrisett erect \$12,000 residence and garage, Oaklawn Ave. near Greenbrier Ave.; brick veneer, 2 stories, 6 rooms.

N. C., Washington—Geo. W. Small erect \$11,000 residence, 3501 Van Ness St., N. W., after plans by Jas. E. Cooper, 1407 K St., N. W.; brick, 2 stories. 8-9

Ola., Tulsa—Samuel Hays, Wright Bldg., erect \$15,000 residence, 2426 S. Terwilliger Blvd.

Tenn., Elizabethton—Vinson S. Hall, Buffalo, N. Y., erect 20 dwellings, Castle Court.

Tex., Dallas—J. T. Ware, 2103 Ross St., erect \$20,000 residence, 4305 Lorraine Ave.

Tex., Dallas—Geo. C. Kean, 504 E. 13th St., erect \$12,000 residence, 4512 N. Verailles Ave.

Tex., Dallas—Mrs. Henrietta Gordon Rogers erect \$15,000 residence, 7208 Fairfax St.

Tex., Houston—C. H. Townsend, 603 Polk St., erect \$12,000 brick veneer residence, 607 Polk St.; 12 rooms.

Tex., Houston—Jesse L. Worsham, 4502 Woodsdale Ave., plans residence, River Oaks.

Tex., Houston—Chas. Bauer, 1756 Branard St., plans residence, River Oaks.

Tex., Houston—E. L. Crain, 202 Fannin St., erect Italian type residence, Prospect Ave. and Live Oak Drive, Riverside Terrace; hollow tile and stucco, stone trim, 2 stories; Wm. Ward Watkin, Archt., Scanlan Bldg.

Tex., Houston—Williams Building and Development Co., Kirby Bldg., erect \$10,000 residence and garage, 2406 Rosedale St.; brick veneer, 7 rooms, \$10,000.

Tex., Houston—J. A. Lewis erect \$10,000 residence, 1923 W. Lamar St.; brick veneer, 10 rooms.

Tex., Houston—Dewitt T. Ray, 3716 Yupon St., erect \$10,000 residence, 3244 Elalée Lane; brick veneer, 8 rooms.

Tex., San Antonio—Republic Portland Cement Co., organized with J. H. Smith, president, erect employees' dwellings upon completion of main bldgs. for \$2,500,000 cement plant; community to be called Longhorn; Terrell Bartlett Engineers, Inc., Engrs., Calcasieu Bldg., San Antonio; Richard K. Meade, Consit. Engr., 10 W. Chase St., Baltimore, Md.

Va., Richmond—R. L. Figg, Mutual Bldg., erect 4 frame dwellings, 2707-12, 2903-07 Northumberland Ave.; \$22,500.

Government and State

N. C., Fort Bragg—Constructing Quartermaster, Capt. Lawrence L. Simpson, receives bids Sept. 6 for Field Artillery Battalion Barracks and 1 Field Artillery Regimental Barracks, including utilities; information on request. 8-2

Tex., Corsicana—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., receives bids Sept. 14 for extension and remodeling of post office; drawings from Supvg. Archt.

Tex., Fort Sam Houston—Artillery Post Quartermaster, P. J. Gorman, has low bid at \$11,000 from Bansbach Bros. for installation of footings, columns and beams and for gen. repair and painting of building.

Va., Quantico—Navy Dept., Bureau of Yards and Docks, Washington, D. C., receives bids Sept. 5 for 7 apartment houses, 1 disciplinary barrack, commissary building, storehouse and motor transport building, power house and pump house, Marine Barracks; estimating contractors lately noted; additional firms estimating: O. A. Mechlin, Barr Bldg.; Harry Alexander, Inc., 1800 E St., N. W.; R. E. Milar Co., Investment Bldg.; D. W. Chapman, Bond Bldg.; Ironclad, Inc., 817 14th St., N. W.; American Bridge Co., Wilkins Bldg., all Washington; David Lupton's Sons Co., Allegheny Ave. and Tulip St., Philadelphia, Pa.; Murch Bros. Construction Co., Rwy. Exch. Bldg.; Usona Manufacturing Co., 3510 Chonto St., both St. Louis, Md.; Cole Manufacturing Co., 789 S. Fourth St., Memphis, Tenn.; Wm. B. Tardy, Knickerbocker Bldg., Baltimore, Md.; Vendor Slate Co., Easton, Pa.; Building Supplies Corp., 1900 Monticello Ave., Norfolk, Va. Additional firms estimating on power plant, equipment, date of bids not determined: Westinghouse Electric and Manufacturing Co., Hibbs Bldg., Washington; General Electric Co., Schenectady, N. Y.; Hahn Engineering Co., 20th and Indiana Ave., Philadelphia, Pa.; R. H. Baker Co., 238 Main St., Cambridge, Mass. 7-12, 7-19, 7-26, 8-2, 8-9

Va., Winchester—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., extend mailing platform, plaster and paint post office; local postmaster ready for bids.

Hospitals, Sanitariums, Etc.

Ala., Atmore—Scott & Peters, Archts., Staples-Powell Bldg., Mobile, drawing plans for hospital. See Want Section—Building Material and Equipment.

Fla., Coral Gables, Miami—Coral Gables Clinic, Inc., 227 Aragon Ave., erect addition; probably soon call bids; Lee L. Wade, Archt., 2314 Ponce de Leon Blvd.

Ga., Atlanta—City, W. P. Price, Pur. Agt., remodel interior of hospital bldg. and nurses' dormitory for colored, Grady Hospital; plans by C. E. Kauffman, City Engr., City Hall; bids Aug. 14.

Ga., Augusta—United States Veterans Bureau, L. H. Tripp, Ch. Constr. Dis., Room 764, Arlington Bldg., Washington, D. C., receives bids Sept. 4 for additions to garage, Building No. 14, U. S. Veterans Hospital; work includes excavation, conc. and brick work, hollow tile, waterproofing, carpentry, steel windows, metal covered door and frame, hardware, painting, glazing, plumbing, heating and elect. work; drawings from Room 764.

La., Monroe—St. Francis Sanitarium receives bids Aug. 31 for rein. conc. and brick addition; 3 stories, 60 beds, fireproof, rein. conc. foundation, asbestos shingle roof, steel sash, struct. steel and iron work, metal windows, elect. signal system, elect. passenger elevator; plans from Wm. T. Nolan, Archt., Canal Bk. Bldg., New Orleans. 7-19

Miss., Vicksburg—Dr. I. C. Knox, 1503 Washington St.; Dr. Ewing F. Howard, First Nat'l Bk. Bldg., and others erect \$125,000 Vicksburg Hospital and Clinic, Veto and Monroe Sts.; 3 and 4 stories, 50 beds, site 144x77 ft.; drawing plans.

Tenn., Nashville—Tennessee Dept. of Institutions, Richard H. Lyle, Commr., selected Marr & Holman, Stahlman Bldg., as architects for administration bldg., Central State Hospital for Insane, to replace structure burned at \$250,000 loss. 8-2

Tex., Sherman or Dallas—Dr. D. M. Hestland erect sanitarium either in Sherman or Dallas.

Tex., Sonora—Lions' Club and others interested in \$30,000 memorial hospital.

Hotels and Apartments

Ala., Mobile—Scott & Peters, Archts., Staples-Powell Bldg., drawing plans for 24-apartment building. See Want Section—Building Material and Equipment.

Ala., Mobile—Battle House Hotel Co., F. Taylor Peck, Treas.-Gen. Mgr., remodel interior and exterior of Battle House and add 2 floors; 120 additional rooms; redecorate; refinance company with additional \$1,000,000 securities; Hutchinson, Holmes & Hutchinson, Archts., Staples-Powell Bldg. 3-15

D. C., Washington—V. Stuart Davis has permit for 3-story store and apartment bldg., 1343-47 Connecticut Ave., N. W.; brick; \$90,000.

Fla., Jacksonville—T. J. McRae, 2503 Market St., erect Tippecanoe Apts., Trout River near North Shore; 8 suites, dock, boathouses; Carlos D. Shank, Archt., West Bldg.

Fla., West Palm Beach—Isaac W. Bernheim, care E. Palmer Bernheim, 149 Broadway, New York, recently reported planning to start work on \$1,000,000 hotel during year; decided not to begin work until 1929.

Ga., Atlanta—W. H. Wynne, 617 N. Highland Ave., N. E., erect \$12,000 apartment hotel, 642 Highland Ave., N. E.; 2 stories.

La., Oakdale—J. W. Hudson erect hotel, Tenth St.

Md., Crisfield—Edw. P. Wyatt is treasurer of corporation planning hotel; to sell stock.

Miss., Hattiesburg—Hotel Hattiesburg, C. J. Thomas, Owner, erect annex; 2 stories, rein. conc., brick, fireproof, and coffee shop on first floor, sample rooms and assembly hall above.

Mo., St. Louis—G. C. Lancy, 3000-A N. Taylor St., erect \$10,000, 2-story, 24x45 ft., brick tenement, 5360-60A N. Kingshighway; comp. shingle roof, hot water heat.

N. C., Charlotte—Charlotte Improvement Co. erect \$14,000 apartment, 1620 Fairview Ave.; brick veneer, 2 stories.

N. C., Charlotte—Abram White, 504 Crescent Ave., erect \$15,000 apartment, 501 Crescent Ave.; brick veneer, 2 stories.

N. C., Plymouth—Chamber of Commerce interested in \$50,000 hotel; 40 rooms.

Okl., Clinton—C. M. Calmes and Elmer Crabbe plans \$200,000 hotel; 6 stories and 3 stories, 90 rooms, dining rooms, banquet hall, drug store, coffee shop, 3 private dining rooms.

Tenn., Knoxville—W. C. Terry, 325 W. Clinch Ave., erect \$75,000 to \$100,000 apartment, Maplehurst Ave., near West Hill Ave.; cast stone exterior, fireproof, steel frame, rein. conc.; 28 suites.

Tex., Austin—Dr. Skill Hotel Co., W. L. Stark, Mgr., Brazos and Sixth Sts., let contract about Sept. 1 for 12-story annex to Driskill Hotel; remodel present structure; \$275,000, fireproof, L shape, 80x100 ft., 200 rooms; stores on first floor, power plant and laundry in basement, 3 elevators; Trost & Trost, Archts., Two Republics Bldg., El Paso. 6-28

Tex., Corpus Christi—G. P. Stevens and associates, Kansas City, Mo., erect tile and stucco apartment; 2 stories, 75x34 ft., rein. conc. foundation, metal lath and plaster, tile and wood floors, orna. iron, elect. refrigeration; W. A. Nethercot, Archt., 7 Lovenskiold Bldg., San Antonio.

Tex., Houston—N. Axelford erect \$24,000 brick veneer apartment, 402 Hutcheson St., Palmer Place; 2 stories, 7 suites of 4 rooms and bath.

Tex., Houston—L. B. Hamilton, 1909 Brazos St., erect brick veneer apartment and garage, 1612 Kipling St.; 2 stories, 4 suites of 4 rooms and bath; \$11,000.

Tex., Llano—Llano Community Hotel Co., T. Y. Hill, Pres., receives bids Aug. 28 for fireproof hotel; \$60,000; rein. conc. and brick, 3 stories; Page Bros., Archts., Austin Nat'l Bk. Bldg., Austin. 7-5

Tex., San Antonio—H. E. Patterson, 142 Bailey St., erect \$60,000 apartment, E. Huiscache Ave. and Carlton Court; Old English type, 8 suites; also erect \$45,000 six-suite building, 225 E. Kingshighway.

Va., Richmond—W. E. Purcell, Jr., 104 N. Eighth St., erect \$100,000 brick apartment, 2714-20 W. Grace St.; 3 stories, 12 suites, 60x57 ft.

Miscellaneous

Ga., Valdosta—J. F. Holmes plans restaurant, community hall and 8 tourist cabins, Pine Camp.

Tex., Mercedes—Morrison Bros. erect \$15,000 dairy barn near Mercedes; R. Newell Waters, Archt., Weslaco.

Tex., Raymondville—Johnson-Hecht, Raymondville, erect 1-story store building and 5 dwellings; former 50x100 ft., conc. and hollow tile, 4 stores; dwellings frame and stucco, tile roofs; tourist camp; \$25,000; Robt. L. Vogler, Archt., Edinburg.

Va., Hopewell—Norwood Wilson, B. G. Slaughter and Lloyd Kitchel compose committee interested in country club and golf course, Chesterfield County.

Va., Lynchburg—Oakwood Country Club, Geo. C. Walker, Pres., Rivermont Ave., Ext.; rebuild structure noted burned at \$20,000 loss.

Schools

Ala., Auburn—Alabama Polytechnic Institute, Dr. Bradford Knapp, Pres., erect chemistry building, auditorium and administration building and textile engineering building; chemistry building first; also install new radio broadcasting station; Institute and City of Auburn will jointly improve sewage system; Warren, Knight & Davis, Archts., Protective Life Bldg., Birmingham, Ala.; Olmsted Bros., Landscape Archts., Brookline, Mass.

Ala., Birmingham—Dr. C. B. Glenn, Supt. of Schools, will select architect for \$50,000 stadium, Woodlawn High School.

Ala., Homewood—Birmingham—City of Homewood voted \$25,000 school bonds for improvements and additions to Edgewood Elementary and Union Hill schools. 7-19

Ala., Jasper—Eldridge Baptist Academy Bd. of Trustees repair and enlarge boys' dormitory.

Ala., Pratt City, Ensley—City of Birmingham erect \$15,000 school, Hibernian Ave. Address Bd. of Education, Birmingham.

D. C., Washington—District Comms., 500 Dist. Bldg., has low bid at \$172,520 from Skinker & Garrett, 1416 F St., N. W., for 8-room addition and combination gymnasium and assembly hall for Morgan School, California St., N. W.

Fla., Starke—Special Tax School Dist. No. 6 voted \$20,000 bonds for school addition; H. B. Wiggins, Supt., Bradford County Bd. of Public Instruction. 8-2

Ga., Atlanta—Bd. of Education, R. R. Ritchie, Asst. Supt., 41 Walker St., receives bids

Aug. 28 (extended date) for additions to following schools: Commercial High, Adair Georgia Ave., Goldsmith and Forrest Ave.; \$289,000 available; following contractors estimating: Grahn Construction Co., Wagar & Co., Norris Bldg.; H. G. Fleming Co.; Joe W. Stout Co., Sanford, N. C.; Palmer-Spivey Const. Co., 128 Eighth St., Augusta; G. Lloyd Preacher & Co., Archts., Wynne-Claughton Bldg. 8-2

Ga., Augusta—Board of Education, Lawton B. Evans, Sec., receives bids Aug. 20 for 6-room school, Steel Place, Fourth Ward; plans at office Bd., Seventh and Telfair Sts.

Ga., Barnesville—Sixth Dist. A. & M. Collegiate, Prof. Galloway, completed plans for brick bldg.; comp. roof, steel truss; Dunwoody & Oliphant, Archts., 460 Broadway, Macon; following contractors estimating: Barnesville Planing Mill, Barnesville; E. I. Rooks, Jackson; Robt. Wheaton & Sons, Griffin; Chess W. Jones, 25 Wall St.; E. J. Arnold, Columbus Rd., both Macon.

Ga., Decatur—Bd. of Education, C. D. McKinney, Chmn., received low bid at \$61,134 from Wagar & Co., Norris Bldg., Atlanta, for additions to 5 schools; brick, comp. roofs, cement and hardwood floors; Edwards & Sayward, Archts., 101 Marietta Bldg., Atlanta. 8-9

Ga., Kirkland—Kirkland Consolidated School Dist. voted \$15,000 bonds to erect school.

Ga., Rome—Martha Berry School receives bids about Aug. 24 for 2-story and basement, rein. conc., brick, stone trim dormitory; built-up roof, steam heat; Cooper & Cooper, Archts., Bona Allen Bldg., Atlanta. 7-19

La., Independence—Tangipahoa Parish School Bd., W. J. Dunn, Supt., Amite, have plans ready about 30 days for bids on \$150,000 high school; brick, 2 stories, rein. conc., stone trim, struct. steel and iron work, steel sash, built-up comp. roof, slate blackboards; Robt. H. Goodman, Archt., Bk. of Baton Rouge Bldg., Baton Rouge. 7-12

La., Mansura—Avoyelles Parish School Bd. receives bids Sept. 4 at Marksville for rein. conc., brick and stone trim school; 2 stories, rein. conc. foundation, comp. roof, struct. steel and iron work; Wm. T. Nolan, Archt., Canal Bk. Bldg., New Orleans. 8-9

La., New Orleans—Orleans Parish School Bd., City Hall Annex, has low bid at \$256,530 from Caldwell Bros. for Valena Jones (colored) School, Annette and Miro Sts.; plans by E. A. Christy, Supvg. Archt. for Board. 7-12

Md., Frostburg—State Normal School has plans for \$60,000 training school. Address The Supt.

Miss., Orange Grove—Orange Grove Separate School Dist. voted \$20,000 bonds for brick school; Vinson B. Smith, Jr., Archt., Gulport. 7-26

Miss., Quitman—Quitman Separate School Dist. Trustees receive bids Aug. 25 at office Terrell & Adams, Quitman, for rein. conc., brick and stone trim school; 1 story, rein. conc. foundation, steel and iron work, built-up comp. roof, blackboards; P. J. Krouse, Archt., M. & W. Bldg., Meridian.

Miss., Sandersville—Sandersville Special School Dist. selected L. W. Duffee, Norman Bldg., Laurel, as architect for \$50,000 high school, Jackson Highway; 10 or 12 classrooms, auditorium seat 600 to 700, study hall; bids about Sept. 10. 8-9

Mo., St. Louis—Mary Institute, Lake and Waterman Aves., controlled by Washington University Corp., has gift of site and \$300,000 for new bldg. from Mrs. Newton R. Wilson.

N. C., Durham—North Carolina College for Negroes, Dr. Frank C. Brown, Chmn., Bldg. Comm., selected Atwood & Nash to prepare plans for \$150,000 administration building; 3 stories and basement, 150x50 ft., fireproof, colonial type, 14 classrooms, library for 12,000 volumes, college store and offices, storage rooms, chemistry and physics laboratories and lecture rooms. 6-21

N. C., Newell, Greer and Little Hope—Mecklenburg County Bd. of Education, Charlotte, receives bids Aug. 28 for schools at Newell, Greer and Little Hope.

Ola., Cushing—Independent School Dist. No. 67, J. E. Hickman, Supt., having plans drawn by Tonini & Bramblett, Archts., 416½ W. Main St., Oklahoma City, for brick and stone school; 2 stories; bonds available.

Ola., Weatherford—State Bd. of Public Affairs, G. C. Wollard, Chmn., has low bid for \$100,000 library, Southwestern State Teachers' College, from Holmboe Co., 426 W. Second St.; brick, stone and rein. conc., 2 stories and basement; Layton, Hicks & Forsyth, Archts., Braniff Bldg., all Oklahoma City.

S. C., Anderson—Bd. of Education having plans prepared by Casey & Fant for following school additions: Whitner St., 1-story and basement, 68x48 ft., brick veneer, comp. roof, \$15,000; Kennedy St., 2 stories and basement, 35x50 ft., tin roof, \$12,000; North Anderson St., 1-story and basement, 100x45 ft., brick veneer, \$12,000; plans by Sam M. Cathcart for following school additions: Souths.de, 2 stories and basement, 40x35 ft., brick veneer, metal roof, \$12,000; Main St., 3 stories and basement, brick veneer, comp. roof, \$16,000; Grand St., 1-story and basement, 115x80 ft., brick veneer, metal roof, \$20,000. 7-12

S. C., Conway—Horry County Bd. of Education, J. G. Lewis, Supt., probably have plans by Wilkins & Hopkins, Archts., Florence, ready about Aug. 15 for bids on high school; \$125,000, brick, stone trim, 2 stories and basement, 109x67 ft., 20 classrooms, gymnasium, built-up roof. 5-3

S. C., Hickory Grove—Town voted \$21,000 school bonds. Address The Mayor.

Tenn., Knoxville—University of Tennessee receives bids Aug. 30 for chemistry bldg.; brick, 5 laboratories, lecture room, etc.; Barber & McMurry, Archts., General Bldg. 7-26

Tex., Brady—Brady Ind. School Dist., H. P. Jordan, Pres., School Bd., remodel present high school into ward school; erect 1-story addition; L. Harrington Co., Archt.-Engr., Bldrs. Exch. Bldg., San Antonio.

Tex., Huntsville—Sam Houston State Teachers College have plans about completed by W. E. Ketchum, Pope Bldg., Austin, for \$200,000 library; fireproof, brick, stone, tile and rein. conc., 3 stories. 5-3

Tex., Lufkin—Hudson School Dist. erect brick building; 6 rooms and auditorium; drawing plans.

Tex., Nome—Ind. School Dist. voted \$12,000 bonds for auditorium and classroom, high school.

Tex., Pearsall—Pearsall Ind. School Dist. have plans ready in few days for \$70,000 school; brick and tile, 1 and 2 stories, 225x140 ft., T shape, cement and wood floors, comp. roof; Will N. Noonan Co., Archt., Bldrs. Exch. Bldg., San Antonio. 8-9

Tex., Port Arthur—Bd. of Education, L. B. Abbey, Sec., receives bids Aug. 24 for \$50,000, 3-story, 137x60 ft., brick, tile, stone, rein. conc. Port Acres School near Port Arthur; separate bids on mechanical work; wood, cement and terrazzo floors; Mark Lemmon Archt., 407 Construction Industries Bldg., Dallas.

Tex., Weslaco—Weslaco Ind. School Dist. have plans for \$50,000 auditorium nearing completion; contract for \$14,000 four-car garage let to R. W. Bennett; R. Newell Waters, Archt. 7-12

Va., Denbigh—Warwick County School Bd., B. L. Poindexter, Chmn., Hilton Village, erect \$25,000 to \$30,000 school; bids in.

Va., Oceana—Lynnhaven School Dist. voted \$100,000 bonds for fireproof high school to replace burned structure; S. S. Gresham, Chmn., Princess Anne County Bd. of Education, Princess Anne. 7-12

Stores

Ala., Fairhope—Scott & Peters, Archts., Staples-Powell Bldg., Mobile, drawing plans for store. See Want Section—Building Material and Equipment.

Fla., Clewiston—Mrs. Anna M. Hopkins, St. Louis, Mo., E. C. Speer, representative. Clewiston, start work at once on \$30,000 second unit of Hopkins Bldg.; 3 stores on first floor, 5-room apartment and 5 offices above.

Ga., Monroe—E. M. Williams erect brick business group, Broad St.

Miss., Tupelo—Jas. R. Anderson call for bids in few days for rein. conc., brick and stone trim store and office building; 2 stories, plate glass windows; Frank Kincannon, Jr., Archt. 6-14

Mo., Kansas City—Walter W. Payne, 2410 Montgall St., erect \$50,000 building, 18th St. and Prospect Ave.; brick, 2 stories, 8 stores on first floor; 5 offices and 57x62-ft. dance hall on second.

Mo., Sedalia—Ira E. Melton, Realtor, 400½ S. Ohio St., handling deal for erection of store, Fifth St. and Ohio Ave., to be leased to Montgomery Ward & Co.; 2 stories and basement, brick or terra cotta. Sedalia firms estimating.

N. C., Durham—Holland Bros. Furniture Co., 309 Chapel Hill St., remodel 2-story bldg., Holland and Foster Sts.; \$16,000.

S. C., Charleston—United Realty Co., Sam Berlin, representative, received low bid at \$23,850 from M. L. Stephenson, 1155 King

St., for remodeling building at King and Radcliffe Sts., to be occupied by F. W. Woolworth & Co. 5-31

Tex., Austin—E. H. Perry, 303 E. Fifth St., received bids Aug. 17 for semi-fireproof store, Congress Ave. near Fourth St., to be leased to Montgomery Ward & Co.; 2 stories, 46x160 ft., rein. conc. foundation, maple floors, 10-year comp. roof, \$25,000; Page Bros., Archts., Austin Natl. Bank Bldg.

Tex., Dallas—E. B. Blerce, 907 S. Mont Clair St., erect \$12,000 brick store and apartment, 408-10 W. Eighth St.

Tex., Houston—Smart Shop, Louis Leon, Gen. Mgr., 317 Main St., erect 2-story mezzanine and basement store; fireproof; site 25x100 ft.

Tex., Houston—J. C. Craig erect \$10,000 brick building, 4721-24 Washington St.; 2 stories.

Tex., Kingsville—Dr. H. Allison erect 2 or 4-story, brick, conc., cast stone store and office; Dieleman & Levy, Archts., 207 Furman Bldg., Corpus Christi.

Tex., Laredo—S. H. Kress Co., 114 Fifth Ave., New York, W. H. Bowen, representative, erect 2- or 3-story bldg. to replace burned structure; razing present structure.

Tex., McAllen—Nassar Bros., Reynosa and McAllen, erect business building, Main St.

Tex., McAllen—A. Zambrano, Monterey, Mexico, erect \$50,000 store and office building.

Tex., San Antonio—Bernard Weiss, 931 W. Gramercy St., erect \$40,000 store, W. Travis and N. Laredo Sts.; brick, 2 stories, site 80x150 ft.

Tex., San Angelo—J. H. Russell and Bros., 1118 N. Chadbourne St., have permit for 2 stores and filling station; brick and tile, \$10,000.

Theaters

La., New Orleans—Gentilly Amusement Co., Warren J. Cobb, Pres., 3514 Gentilly Rd., erect fireproof motion picture theater; struct. steel and hollow tile; oval shape, rein. conc. foundation, steel and iron work, asbestos shingle roof; \$22,000; F. T. Daunis, Archt., 820 Pine St.

Mo., Cape Girardeau—New Broadway Theatre, S. E. Brady, Owner-Mgr., remodel theater; install refrigeration system.

Warehouses

La., New Iberia—Teche Wholesale Grocery Co. erecting \$50,000 conc. warehouse.

Tex., Houston—Houston Show Case Manufacturing Co., 3616 Washington St., erect \$11,000 addition to 2-story warehouse, John Brashear addition.

Tex., Lubbock—R. F. Bayless and L. H. Hungate have permit for \$17,000 warehouse.

BUILDING CONTRACTS AWARDED

Association and Fraternal

Ark., Fort Smith—Hunt Electric Co., 809 Garrison St., Fort Smith, has erect, work contract at \$14,665 for \$300,000 Masonic Temple; Geo. R. Mann, Wanger & King, Archts., A. O. U. W. Bldg., Little Rock; Haralson & Nelson, Asso. Archts., Merch. Bk. Bldg., Fort Smith; Gordon Walker, Contr., Little Rock. 6-21

La., Alexandria—Knights of Columbus let contract at \$17,000 to R. L. Roland & Son, French Settlement, La., for hollow tile, brick and stucco lodge bldg.; 2 stories, conc. foundation, metal and wood lath, comp. shingle and tile roof; Wm. R. Burk, Archt., Balter Bldg., New Orleans. 7-19

Bank and Office

Md., Baltimore—Canton Lumber Co., Kenwood Ave., and P. M. Womble, Elliott and Linwood Ave., have lumber contracts for \$3,000,000 Baltimore Trust Co. bank and office building; heating and plumbing, H. E. Crook Co., Inc., 28 Light St.; electrical work, Howard P. Foley Co., 2020 1 St., N. W., Washington, D. C.; waterproofing, Western Waterproofing Co., Syndicate Trust Bldg., St. Louis; sand and gravel, Arundel Corp., Pier 2, Pratt St.; tile arches, partitions, brick work, D. C. Butcher, 10 W. Chase St.; sheet piling, Bethlehem Steel Co.; Atlas Luminite cement, Maryland Lime and Cement Co., Central and Eastern Aves.; Berkeley hydrated lime, Pen-Mar Co., Inc., Munsey Bldg., and Robert S. Green, Inc., 3232 Frederick Ave.; Security Portland cement, Pen-Mar Co., Inc., Sarson-Stanwood Supply Co., 508 St. Paul St.; Maryland Lime and Cement Co.; paint for structural, steel, L. Sonnenborn Sons, Inc., 513 W. Lombard St.; painting temporary work, J. G. Valiant Co., 224 N. Charles St.; mill shop and field inspection, Robert W. Hunt Co.; photographs, Harry B. Leopold, 611 E. 36th St.; Taylor & Fisher, Union Tr. Bldg., and Smith & May, Calvert Bldg., Archts.; Herman F. Doebleman, Struct. Engr., 516 N. Charles St.; J. Henry Miller, Inc., Gen. Contr., Eutaw and Franklin Sts. 8-9

Okla., Oklahoma City—Frank P. Johnson, American First Natl. Bk. Bldg., let contract to Campbell & Price, 603½ W. Main St., for 5 additional stories to 3-story Shops Bldg., Main St. and Hudson Ave.; 300 additional offices; fireproof, brick and conc., \$100,000; Hawk & Parr, Archts., Cotton Exch. Bldg. 12-15

Tex., Fort Worth—Fort Worth Properties Co., John T. Jones, Pres., 600 W. Tenth St., erecting \$1,000,000 Electric Bldg.; 18 stories; Wyatt C. Hedrick, Inc., Archt., First Natl. Bank Bldg.; L. E. Myers Construction Co., Contr., 58 W. Jackson Blvd., Chicago, Ill., and Allen Bldg., Dallas, Tex. 2-16

Tex., Houston—Vermont Marble Co., Electric Bldg., has marble work contract for \$225,000 Federal Land Bank; Hedrick & Gottlieb, Archts., Post-Dispatch Bldg., Houston; Wohlfield & Witt, Contrs., Dallas. 7-12

Tex., San Antonio—Commercial National Bank, St. Marys St., remodel and enlarge basement; Phelps & DeWees, Archts., Gunter Bldg.; Jay DePuy, Contr., Bldrs. Exch. Bldg.

Va., Richmond—Richmond Trust Co., Carter N. Williams, Jr., let contract to Wise Granite & Construction Co., American Natl. Bk. Bldg., for 3 additional floors to 7-story bldg., Seventh and Main Sts.; \$175,000; Starrett & Van Vleck, Archts., 303 Seventh Ave., New York. 7-5

Churches

Ky., Mayfield—First Christian Church let contract for \$35,000 addition to Jack Cole Contracting Co., Guthrie Bldg., Paducah; brick, conc. and frame, pine floors, conc. foundation, tin roof; G. Tandy Smith, Archt., Guthrie Bldg. See Want Section—Building Material and Equipment. 8-2

Miss., Canton—Roman Catholic Church let contract at \$34,794 to W. G. Wetmore, Jackson, for brick and stone trim church; rein. conc. foundation, conc. and wood floors, built-up comp. roof, metal lath; Claude H. Lindsay, Archt., Lamar Life Bldg., Jackson. 7-26

Mo., Kansas City—Westwood M. E. Church, Rev. R. T. White, Pastor, started work on ground floor unit of Gothic type building, Roanoke Pkwy., 47th St. and Madison Ave.; auditorium seat 250, 7 classrooms, kitchen and heating plant; superstructure providing auditorium to seat 750 plans for 1929; Victor J. DeFoe, Archt., 114 W. Tenth St.

Tex., San Angelo—Beth Israel Congregation let contract at \$12,120 to Fuller & Haffey for synagogue; 35x45 ft., 1 story and basement, conc. foundation, Johns-Manville roof; furnishings, equipment, etc., \$1500; John G. Becker, Archt. 7-26

Tex., Seguin—Evangelical Lutheran Church let contract at \$29,007 to Henry Weiss, Seguin, for community house; conc., hollow tile and brick; Marvin Eickenroht & Bartlett Cocke, Archts., Maverick Bldg.; Beretta-Sistles Co., Inc., Const. Struct. Engr., Natl. Bank of Commerce Bldg., both San Antonio. 8-2

Va., Roanoke—Aeolian Co., Fifth Ave. and 5th St., New York, has contract for \$31,300 pipe organ for \$250,000 First Presbyterian Church; Louis Philippe Smith, Archt., 112 Kirk Ave., Roanoke; Meyer & Mathieu, Const. Archts., 316 Flatbush Ave., Brooklyn, N. Y.; D. J. Phipps, Contr., Boxley Bldg., Roanoke. 5-31

City and County

Ga., Atlanta—City Hall Committee of City Council; Howard C. McCutcheon, Chmn., let contract at \$840,700 to National Construction Co. for steel, conc., stone and terra cotta city hall; 15 stories, marble, tile and linoleum floors, rein. conc. foundation, tile roof; furnishings, equipment, etc., \$250,000; G. Lloyd Preacher & Co., Inc., Archts.-Engrs., Wynne-Claughton Bldg. 8-9

Miss., Brookhaven—Lincoln County Bd. of Supvrs. let contract at \$16,187 to W. G. Wetmore for courthouse and jail repairs; Emmett J. Hull, Archt., Merch. Bk. Bldg., both Jackson. 8-2

Miss., Lexington—Holmes County Bd. of Supvrs. let contract at \$21,260 to Currie & Corley, Raleigh, for alterations and additions to courthouse; J. M. Spain, Archt., Millaps Bldg., Jackson. 7-26

Mo., St. Louis—E. A. Koeneman Electric Co., 1420 Pine St., has contract at \$15,900 for transformer sub-station in \$4,000,000 Civic Courts Bldg. nearing completion; plans by Plaza Commission, Inc.; Selden-Breck Construction Co., Contr., Fullerton Bldg. 2-9

N. C., Bryson City—Swain County Bd. of Commrs., J. Z. Wright, Chmn., let contract to Brown-Harry Co., Gastonia, for \$75,000 jail; rein. conc. and brick, 3 stories and basement, 42x69 ft., comp. roof; jail work, Stewart Iron Works, 781 Stewart Block, Cincinnati, Ohio.

Dwellings

Ala., Miami Beach—Mrs. Humphrey W. Chadbourne, 120 Broadway, New York, started work on \$15,000 residence, 5345 Pine Tree Drive; John H. Bullen, Archt., Exchange Bldg., Miami.

Ark., Little Rock—S. J. Newcomb, Pres. Newcomb-Hill Motor Co., 918 Main St., erect \$25,000 residence, 18 Edgehill Road; brick veneer, 2 stories, 10 rooms, tile roof; W. F. Ault, Contr., Sixth and Broadway.

D. C., Washington—Alfred H. Lawson, 1629 Columbia Rd., N. W., erect \$16,500 residence, 4001 Indian Lane, N. W.; brick, 3 stories; Arthur B. Heaton, Archt., 1211 Connecticut Ave.; W. C. & A. N. Miller, Contrs., 1119 Seventeenth St., N. W. 8-9

D. C., Washington—Arthur B. Heaton, Archt., 1211 Connecticut Ave., N. W., erect \$21,000 residence, 4861 Indian Lane, N. W.; brick, 2 stories; plans by owner; W. C. & A. N. Miller, Contrs., 1119 Seventeenth St., N. W.

D. C., Washington—W. C. & A. N. Miller, 1119 17th St., N. W., erect \$12,500 dwelling, 4516 Garfield St., N. W.; 2 stories, brick; owners build.

Fla., Canal Point—Southern Sugar Co. subsidiary of Celotex Co., 645 N. Michigan Ave., Chicago, Ill., let contract at \$76,665 to Chalker & Lund, Harvey Bldg., West Palm Beach, Fla., for 52 single and 24 double employees' quarters, misc. wash houses, bunk houses, etc.; frame, 24x16 ft., 48x21 ft., 50x24 ft., 33x16 ft. and 36x74 ft., wood and cement floors, slate comp. roofs, piling foundations; plumbing at \$12,375 to H. W. Thorne, 1704 Georgia Ave., West Palm Beach; septic tanks and disposal fields, Palm Beach Concrete Co., 54th St., \$5930; Clark J. Lawrence, Archt., Murray Bldg., Palm Beach. 8-9

Fla., Coral Gables, Miami—Walter Thrane erect \$25,000 residence and garage, Santa Maria St. near Bird Rd.; conc. block, 2 stories, 70x70 ft., tile and oak floors, tile roof; A. L. Klingbell, Archt., Batcheller Properties, Inc., Contr., both Karp Bldg.

Fla., Coral Gables, Miami—Dr. Selden L. Rainforth, 2302 Granada Blvd., erect \$25,000 residence, Granada Blvd.; conc. block, 2 stories, 70x82 ft., tile and oak floors, tile roof; A. L. Klingbell, Archt.; Batcheller Properties, Inc., Contr., both Karp Bldg.

Fla., Jacksonville—Harrison M. Reed, Sr., erect \$25,000 residence, San Jose; hollow tile and stucco, tile and wood floors, tile roof, orn. iron; Marsh & Saxelby, Archts., Consolidated Bldg.; Arthur F. Perry, Jr., Contr., Bisbee Bldg.

Fla., Miami—A. J. Fay, 1402 S. Bayshore Drive, erect addition to residence; Henry LaPointe, Archt.; day labor; Thos. Held, Supt., at site.

Ga., Atlanta—Mrs. Martha S. Walden, 229 Second Ave., S. E., erect \$10,000 brick veneer residence, 691 Sherwood Road, N. E.; 1 story, 8 rooms, 2 baths, hardwood floors, comp. roof, hot air heat; G. Tandy Smith, Archt., Guthrie Bldg., Paducah. 8-9

La., New Orleans—Mr. Lorenz and Mr. Tellot each erect single brick residence, Fairmont Drive and Gentilly Rd.; J. L. Armon, Contr., 5771 Ridgeway St.

La., New Orleans—Mark W. Kennedy, 3827 Iberville St., erect \$11,000 duplex, Fontainebleau Drive; J. M. DeFraites, Inc., Contr., 517 Canal Bldg.

La., New Orleans—B. Intravia, 4827 Prytania St., erect double residence, 4717 Constance St.; Geo. J. Lupo, Contr., 5404 Hawthorne St.

La., New Orleans—Jos. J. Ferguson, 1837 State St., erect \$12,500 raised residence, State St. near Loyola St.; 2 stories, 30x50 ft.; Paul G. Charbonnet, Contr., 830 Union St.

La., New Orleans—Mrs. Thomas erect single residence, 1020 Bordeaux St.; Geo. A. Allain, Contr., 725 Upperville St.

La., New Orleans—R. J. McGinty erect \$11,500 single residence, State St. Drive near Claiborne St.; comp. roof; Hyman Rabinowitz, Contr., 740 Poydras St.

La., New Orleans—J. B. Marshall, Contr., 2845 Ponce de Leon St., erect single dwelling, 2850 Maurepas St.

La., New Orleans—J. Carbon erect double residence, 6004-06 Dauphine St.; L. F. Konquillo, Contr., 6027 Chartres St.

La., New Orleans—Mr. Barlatin erect double residence, Conti and Salcedo Sts.; S. P. Lathan, Contr., 212 S. Hennessy St.

La., New Orleans—Mr. Dauvassat erect residence, DeSoto St. near Rondon St.; LeBlanc & Miller, Contrs., 1810½ Gentilly Road.

Md., Baltimore—Herman Home Builders Corp., 3741 Culver St., erect 9 brick dwellings, 3200 block Hoffman Lane; 2 stories; \$18,000.

Md., Baltimore—J. C. Rogers erect 5 brick dwellings, 600 block North Collins Ave. and 4 in 400 block Edmondson Ave.; \$29,000.

Md., Baltimore—B. Franklin Hearn erect \$10,000 residence and garage, 313 Thornhill Road; brick, 2 stories, 37x34 ft. and 10x20 ft., slate roofs, hot water heat; H. A. Stillwell, Archt.; Peyton B. Strobel Co., Contr., all 106 E. Lexington St.

Md., Baltimore—Thos. J. Donohue erect 22 brick dwellings, 2500x42 Cecil Ave.; 2 stories, 15x28 ft., Carey roof, hot water heat; \$44,000; plans and constr. by owner.

Md., Baltimore—J. Hurst Purneil, Cold Spring Lane, erect 3 brick dwellings, and garages, 511-15 Wingate Road; 1½ stories, 25x30 ft. and 10x18 ft., slate roofs; \$10,000; Geo. Wessel, Archt., 601 W. 40th St.; owner builds.

Md., Baltimore—Francis Kennedy, Charles and Wells Sts., erect \$15,000 residence and garage, 4604 Kereway St.; brick, 2 stories, 55x62 ft. and 16x9 ft., slate roofs, hot water heat; Palmer & Lambdin, Archts., 513 N. Charles St.; E. E. Cullings, Contr.

Md., Baltimore—Columbia Construction Co., Inc., Munsey Bldg., purchased property, Edmondson Ave. and Wildwood Way from Cleveland R. Bealmeir (lately noted to erect dwellings); erect number 2-story brick dwellings.

Md., Baltimore—J. W. Smith erect \$15,000 residence, 4905 Charles St.; 2½ stories, 44x34 ft., slate roof, hot water heat; Bernard Evander, Archt., 20 E. Lexington St.; Henry A. Knott & Co., Contrs., 2107 N. Charles St.

Md., Baltimore—Benj. Kleiman, Bldr., 329 Calvert Bldg., erect 8 dwellings, Wichita Ave. near Reisterstown Rd.; owner builds.

Md., Baltimore—Webb Construction Co. erect 4 frame dwellings and garages, 3000 block Pinewood Ave.; 2 stories; \$10,000.

Md., Baltimore—John A. Immler, 21 W. Saratoga St., erect \$10,000 residence and garage, 3509 Crossland Ave.; 2 stories, 34x44 ft. and 20x20 ft., slate roofs, hot water heat; Chas. Wm. Immler, Archt., 4607 Hamilton Ave.; Younger & Riddle, Contrs., 4400 Carleview Road.

Mo., Clayton, St. Louis—Florence Balcom, Mt. Vernon, Ill., erect \$17,000 brick residence, Moorlands Place, Claytonia Ave.; 48x36 ft.; Parnell Quick, Contr.

Mo., Clayton, St. Louis—A. A. Alexander erect \$14,000 brick residence, Moorlands Drive; 30x40 ft.; Higbee Bros. Construction Co., Contr., 2138 Hwy. Exch. Bldg.

Mo., Joplin—Conqueror-First National Bank plans 50 dwellings, vicinity 15th St. and Monroe Ave.; \$150,000; J. R. Rabbitt, Contr.

Mo., St. Joseph—H. S. Mahan, Contr., 1503 S. 25th St., erect number dwellings, Lover's Lane; \$100,000.

Mo., St. Louis—M. K. Federer, 3829 Connecticut St., erect \$20,000 brick residence, 3836 Kingshighway; 2 stories, 38x72 ft., slate roof, hot air heat; Roy O. Chaffee, Archt., 3529 Franklin St.; A. R. Darr, Contr., 4300 Dewey St.

Mo., St. Louis—Somerset P. R. Co., Title Guaranty Bldg., erect 6 brick dwellings, 3701-05-11-15-17-21 Childress St.; 1 story, 28x38 ft., comp. roofs, hot water heat; \$24,000.

N. C., Roaring Gap—Leonard Tufts, Pinehurst, N. C., started work on stone veneer

residence; 2 stories, 32x53 ft., oak floors, tile roof; Haven & Hoyt and Lyman Lise, Archts., 5 Bromfield St., Boston, Mass.; Pinehurst, Inc., Contr., Pinehurst.

Okla., Hollis—Dr. J. E. Jones let contract at \$21,000 to Richardson & McGraw, Hollis, for brick veneer residence; 2 stories and basement, 42x64 ft., conc. and oak floors, rein. conc. foundation, Johns-Manville shingle roof; R. B. Perkins, Archt., P. O. Box 151, Altus. See Want Section—Building Material and Equipment. 8-2

Okla., Oklahoma City—Mrs. O. L. Kerr, 19 W. Second St., let contract to Schmidt Construction Co. for \$13,000 residence and garage; brick veneer, 2 stories, hardwood floors, wood shingle roof; Harry Reynolds, Archt., Magnolia Bldg. 7-12

Okla., Tulsa—Roy Morgan erect about 25 brick dwellings, Vine Haven on 11th St. East, in addition to several completed.

Tenn., Knoxville—Clarence Iron started work on Colonial residence, Kingston Pike; Albert E. Gredig, Archt., Mercantile Bldg.

Tex., Fort Worth—Rogers Barber & Wilkes, 609 Tex. Nat'l Bldg., let contract to Kelly Poff, both 609 Tex. Nat'l Bldg., for brick veneer residence, 2018 Ward Pkwy.; 2 stories, rein. conc. foundation, asbestos roof; plans by Mr. Poff. 8-2

Tex., Houston—Marine Building & Investment Co., 2731 Washington Ave., started work on 16 dwellings, Houston Heights; \$2000 each; 1 story, 24x32 ft., pine floors, conc. block foundations, shingle roofs; Grady H. Collins, Archt., 1104 Waugh Drive; work by sub-contract.

Tex., New Braunfels—Dr. A. H. Noster, 224 E. Commerce St., San Antonio, started work on residence.

Tex., San Antonio—American Building Co., Real Estate Bldg., erect 2 Normandy type dwellings; rock, stucco and brick veneer, 8 rooms, 2 baths; John M. Marriott, Archt., Frost Bldg.; owner builds.

Tex., San Antonio—T. H. Johnson erect 12 additional dwellings, Greer and Haggins Sts., Inverness; owner builds.

Tex., San Antonio—Mrs. Ida T. McVicar, Travis Bldg., erecting \$12,000 brick veneer residence, Club Drive; 1 story, 52x10 ft., oak floors, shingle roof; E. S. Kaler & Co., Archts.—Contr., Travis Bldg.; W. H. Liley, Engr., Frost Bldg. 8-9

Tex., Wharton—Texas Gulf Sulphur Co., Inc., 41 E. 42nd St., New York, erecting 11½ dwellings, Newgulf; 3, 4 and 5 rooms; Vaughan Lumber Co., Contr., Gibbs Bldg., San Antonio, Tex.; complete 2 about every 3 days.

Government and State

Oka., Helena—State Bd. of Public Affairs, G. C. Wollard, Chmn., let contract at \$44,250 to McMillan & Shelton, Enid, for girls' dormitory, Western Oklahoma Orphans' Home.

Va., Fort Humphreys—Constructing Quartermaster, Fort Humphreys, Capt. Geo. F. Hobson, let contract at \$196,617 to J. C. Curtis, Denbigh, Va., for 3 Engineer Company barracks; rein. conc. frame, brick veneer, 2 stories and basement, about 39x178 ft. with 10x178-ft. porch each, rein. conc. cement finish floors, conc. footings, slate roofs; plans from Quartermaster General's Office, Washington, D. C. 8-9

Hospitals, Sanitariums, Etc.

Ala., Birmingham—Doster - Northington, Inc., 2108 First St., has surgical equipment contract at \$30,000 for \$500,000 Hillman Hospital nearing completion; Harry B. Wheelock, Archt., Steiner Bldg.; A. J. Krebs Co., Contr., Walton Bldg., Atlanta, Ga. 6-7

W. Va., Beckley—State Bd. of Control, Jas. S. Lakin, Pres., Charleston, completed sub-foundations for \$200,000 first unit of Rutherford Tuberculosis Sanatorium; Indiana limestone foundation, Ava multi-colored rough face brick, terrazzo tile corridor, hall and dining room floors, sun porch, enclosed porch on second floor, radio sets; R. A. Gillis, Archt., Fleming Bldg., Fairmont; J. W. Thomas, Constr. Engr., in charge of building work. 8-2

Hotels and Apartments

D. C., Washington—Chas. A. Treadaway erect \$600,000 apartment, Connecticut Ave. and Legation St.; 5 stories, Tudor type, brick, stone, conc. and hollow tile, site 96x225 ft.; 83 suites of 3 and 4 rooms and bath; Louis T. Rouleau, Archt., 1420 K St. N. W.; H. P. Giddings, Contr., 1336 N. Y. Ave. N. W. 8-2

Fla., Jacksonville—J. G. Heagy erect

4-apartment bldg., 931 King St., \$10,000; J. W. Henderson, Contr., 304 Spearing St.

Fla., Jacksonville—Eddelstein Construction Co. erect \$50,000 apartment bldg., Park and Stockton Sts.; 2 stories, 10 suites; I. Eddelstein, Contr.

Ga., Atlanta—Southern Ferro Concrete Co., 70 Ellis St. N. E., has contract to remodel Piedmont Hotel, Peachtree and Luckie Sts.; new furnishings, piping, steam heat; work to start in Jan. 7-12

Ky., Louisville—H. S. Epstein, 1919 Avery Court, completed excavation for \$37,500 apartment, 623 Lindell Ave.; brick and hollow tile, 2 stories, 147x30 ft., hardwood floors, conc. foundation, comp. roof; O. J. Howick, Archt., Citizens Bldg. See Want Section—Building Material and Equipment. 8-9

La., New Orleans—O. Noisen, Contr., 217 Conrad St., remodel and erect addition to apartment, 1245-47 N. Claiborne St.

Miss., Clarksdale—Mrs. M. H. Lawless started work on remodeling and enlarging for hotel; brick, stone, marble and plaster, 3 stories, 30x150 ft., tile and wood floors, built-up pitch and gravel roof; Mason & Sporl, Archts., Vincent Bldg., New Orleans, La.; F. T. Blackburn, 116 Cherry St., Clarksdale, gen. contract at \$52,500 and fee. See Want Section—Building Material and Equipment. 7-26

Mo., St. Louis—H. Boekers, 4603A Rosalie St., erect \$10,000 tenement, 4606-08 W. Florissant St.; brick, 2 stories, 35x50 ft., comp. roof, hot air heat; Schulte & Tarling, Archts., 2806 N. Grand St.; H. C. Simon & Co., Contr., 455 N. Newstead St.

Mo., St. Louis—Mars Realty Co., 209 International Life Bldg., erect 11 two-story, 34x41 ft. brick tenements, 5638-60 and 5635-33 Herbert St.; comp. roofs, hot air heat; \$88,000; owner builds.

Mo., St. Louis—Union Realty and Construction Co. erect \$10,000, 2-story, 34x43 ft., brick tenement, 5629-31 St. Lou. St.; comp. tar and gravel roof, hot air heat; M. D. Larner, Archt., both 5554 Easton St.; owner builds.

Tenn., Chattanooga—W. F. Stewart, Contr., Stewart Construction Co., Provident Bldg., erect \$360,000 co-operative apartment, Shallowford and Crest Roads, Missionary Ridge; Louis XV type, V shape, 6 stories, suites of 4, 5 and 6 rooms, elect. refrigerators, incinerators, tile baths, showers, elevator to sun parlor on top floor, service elevators. 8-9

Tenn., Memphis—Memphis Electric Co., 285 Madison Ave., has elec. work contract for \$750,000 Forrest Park Apts. for Wm. White, Amer. Bk. Bldg.; Hanker & Cairns, Archts., Court Square Bldg.; Gardner & Howe, Engrs., Porter Bldg.; S. & W. Construction Co., Contr., Shrine Bldg. 6-14

Tex., Beaumont—Algonite Stone Manufacturing Co., 4606 Chippewa St., St. Louis, has cast stone contract for \$1,000,000 Edison Hotel; steel joists and metal lath, Berger Manufacturing Co., 1413 Fannin St., Houston; T. W. Steinman & Sons, Archts., 411 San Jacinto Life Bldg., Beaumont; Hedrick & Gottlieb, Asso. Archts., Post-Dispatch Bldg., Houston; Christy-Dolph Construction Co., Contr., Indus. Bldg., Dallas. 8-9

Tex., Brownsville—J. S. Sweeney erect \$12,500 apartment; hollow tile and stucco, 2 stories, 8 suites, conc. foundation; E. G. Holliday, Contr.

Tex., Corpus Christi—Dielmann & Levy, 216 Furman Bldg., erect 2-story, brick, tile and rein. conc. apartment, Craig and 10th Sts.; owners, Archts.—Bldrs.

Tex., Corpus Christi—Southern Ornamental Iron Works, 2425 S. Harwood St., Dallas, has misc. iron contract at \$14,763 for \$600,000 Plaza Hotel; cast stone, Southern Cement Products Co., 521 Menchaca St., San Antonio, \$16,730; fire escape, Southern Steel Co., 4500 S. Presa St., San Antonio, \$2250; Adams & Adams, Archts., Real Est. Bldg.; W. E. Simpson & Co., Consol. Engrs., Natl. Bank of Commerce Bldg.; McKenzie Construction Co., Contr., Travis Bldg., all San Antonio. 8-2

Tex., Galveston—Pyramid Stone Co., National and Center Sts., Houston, has cast stone contract for \$1,000,000 Buccaneer Hotel; Andrew Fraser, Archt., Amer. Natl. Ins. Bldg., Galveston; Bellows-MacLay Construction Co., Contr., Constr. Indus. Bldg., Dallas. 7-19

Tex., Houston—Bayer Investment Corp. erect \$30,000 apartment, Bartlett and Graustark Sts.; brick veneer, 16 suites; Bayer Co., Contr.

Tex., Orange—Orange Car & Steel Co., Orange, has steel contract for \$500,000 hotel for Marine Hotel Co.; Tisdale, Stone & Pinson, Archts., 1103 Goodhue Bldg.; Sned Construction Co., Contr., both Beaumont. 8-2

Tex., Port Arthur—Truscon Steel Co., Youngstown, Ohio, has steel lath and joists contract for \$500,000 Vaughn Hotel; Jos. W. Finger, Archt., Keystone Bldg., Houston; Livesay & Wiedeman, Asso. Archts., San Jacinto Life Bldg.; McDaniel Bros., Contrs., P. O. Box 826, both Beaumont. 8-9

Tex., San Antonio—Mrs. J. W. Holman, Weimar, has permit for \$20,000, stucco, 10-apartment, 505 Kingshighway; W. H. Moore, Contr., Kelly Field. 8-25

W. Va., Wheeling—Bankers' Trust Co., H. A. Lapman, Gen. Mgr., Conser. Life Ins. Bldg., let contract to Amord Realty Co., 1530 Market St., for \$250,000 Edge-Mar Apartment Hotel, National Highway near Edgington Lane, Pleasant Valley; fabricated steel, conc. and brick, fireproof, 4 stories, 120x120 ft., ornate, terra cotta; stores on first floor; tea room, cafeteria and luncheon grill on second, bachelor apartments above; Fox, Duffy & Foose, Archts., 1225 Prospect Ave., Cleveland, Ohio. 7-19

Miscellaneous

Mo., Clayton, St. Louis—Passionist Fathers, Normandy, erect \$25,000 brick convent, Natural Bridge and St. Ann's Lane; Lenore & Boswell, Archts.; Peter Goulet, Contr.

Mo., St. Louis—German House, Inc., Jos. Sauerburger, Chmn., Bd. of Directors, let contract for \$300,000 building, 2345 Lafayette Ave., to A. H. Haeseler Building and Contracting Co., Wainwright Bldg.; brick, terra cotta trim, 4 stories, site 115x185 ft.; banquet hall, coffee shop, rathskeller and 12 bowling alleys on ground floor; auditorium with stage on first floor; offices on next floor, social rooms and meeting halls on upper floors; Jacob Heim, Archt., 211 N. Seventh St. 2-2

N. C., Charlotte—Abbott Realty Co., 201 Johnston Bldg., let contract to South Eastern Construction Co., N. 2d St., for \$46,000, 50x90 ft., brick and stone te room and 22-bed rooming house on Hawthorne Lane; C. C. Hook, Archt., Commercial Bank Bldg.

Tex., Austin—O. O. Norwood let contract to Frank Barron, 121 W. 7th St., for \$45,000, 54x128 ft., one-story, fireproof, rein. conc., hollow tile and stucco club building on top of 4-story Motoramp Garage, 7th and Colorado Sts.; built-up roof, linoleum and maple floors; work to start about Sept. 1; Giesecke & Harris, Archts., 207 W. 7th St.

Tex., San Saba—Mrs. Marjorie Molloy erect 2-story cafeteria and apartment house; J. W. Patterson, Contr.

Va., Williamsburg—Organization financed by John D. Rockefeller, Jr., Dr. W. A. R. Goodwin, representative, George Wythe House, restoring Williamsburg to condition in Colonial days; about \$5,000,000; Todd & Brown, Contrs., Greybar Bldg., New York, and Williamsburg; Perry, Shaw & Hepburn, Archts., 177 State St., Boston, Mass. 12-29-27 and 8-2-28

Railway Stations, Sheds, Etc.

Mo., St. Louis—Eichler Heating Co., Rwy. Exch. Bldg., has heating contract for \$850,000 fruit auction house for Wabash Railway Co.; plumbing, Thos. J. Sheehan Co., 2233 Olive St.; wiring, W. C. Burton Electric Co., 904 Pine St.; R. E. Mohr, Company Archt.; Boaz-Kiel Construction Co., Contr., 409 N. Broadway. 8-2

Schools

Ala., Clanton—School Bd. let contract for \$25,000 grammar school to A. B. Bearden & Son, Birmingham.

Ala., Moulton—Lawrence County Bd. of Education, Earl M. Hodson, Supt., let contract to R. P. Montgomery for one-story, 80x40-ft., brick vocational building, high school grounds; comp. shingle roof, wood floors, class, carpentry, forge, sewing and cooking rooms. 8-9

Ark., Arkadelphia—N. P. O'Neal, care Hope Brick Works, advises has not dormitory contract for Henderson-Brown College as lately reported; John P. Almand, Archt., Boyle Bldg., Little Rock. 8-9

Ark., Prescott—School Bd. completed foundation for \$25,000 junior high school; brick, 1 story, pine floors, built-up roof; David Fulcaner, Archt.; Bardwell & Freeman, Contrs.; material purchased. 8-2

Ga., Ambrose—Ambrose Consolidated School Dist. let contract at \$18,100 to R. N. McEachern, Douglas, for school; auditorium seat 400, 10 classrooms, kitchen.

La., Baton Rouge—East Baton Rouge Parish School Bd. let contract at \$21,276 to W. M. Day, 324 Annie Delphine Place, for brick negro school; 1 story, 145.9x51.7 ft., wood floors, asbestos shingle roof, conc.

footings, brick foundation; Lewis A. Grosz, Archt., Raymond Bldg.

Miss., Clyde—Lamar County Bd. of Education, Purvis, let contract for 1-story brick Victory School to Bradley Bros., Laurel; E. C. Hearon & Sons, Archts., 201½ W. Pine St., Hattiesburg. 8-2

Miss., Union—School Bd. let contract to Service & Turner for \$15,000 annex, Union High School. 4-25

Miss., Wesson—Agricultural High School, Robt. Rae, Supt., let contract at \$95,508 to Howell Construction Co., Philadelphia, Miss., for Copiah-Lincoln Junior College; contract not let for Supt.'s residence; heating, plumbing and wiring Aug. 14; brick, 2 stories, comp. roofs, stone trim; Emmett J. Hull, Archt., Merch. Bank Bldg., Jackson. 7-26

N. C., Durham—Virginia Bridge & Iron Co., Roanoke, Va., has contract for 550 toas struct. steel for library and school bldg. for Duke University; Horace Trumboauer, Archt., Land Title Bldg., Philadelphia, Pa.; Wm. S. Lee, Consit. Engr., 335 Fifth Ave., New York, and Charlotte, N. C.; construction by owner. 11-3-27

N. C., Statesville—School Bd. let contract to Cline & Marlowe, Hickory, for \$75,000 school; after plans by Hampton & Jordan, Archts., Statesville; brick, 2 stories, 10 rooms, comp. roof; auditorium seat 500, vapor steam heat. 8-9

Okla., Sulphur—State Bd. of Public Af-fars, G. C. Wollard, Chmn., Oklahoma City, let contract at \$112,000 to G. C. Frier, Sulphur, for additional buildings, State School for Deaf and Blind.

S. C., Laurens—Gary Martin, Clinton, has contract for school, Tumbling Shoals, Laurens County; J. G. Cunningham, Archt., 201-A E. Coffee St., Greenville.

Tenn., Jackson—Lane College, J. Lane, Pres., let contract to J. A. Stanfill for brick and cement heating plant; 1 story, 46.3x36.2 ft., cement floors and foundation; plumbing, Curtiss Plumbing Co.; Tisdale, Stone & Pinson, Archts., Ind. Life Bldg., Nashville. See Want Section—Building Material and Equipment. 8-2

Tenn., Knoxville—Knox County Bd. of Education let contract to R. M. Grant, Holston Bank Bldg., at \$11,261 for 5-room brick school at Chilhowee Hills; also let contract at \$3739 to H. E. Rogers for 2-room school at Milletown.

Tex., Beaumont—Berger Manufacturing Co., 1413 Fannin St., Houston, has steel joists and metal lath contracts for \$200,000 Dck Dowling and David Crockett Junior High School; Livesay & Wiedemann, Archts., San Jacinto Life Bldg. 8-9

Tex., Beaumont—Bd. of Education let contract to King-Huff Construction Co., Beaumont, for \$100,000 negro school, 1917 Pine St.; plumbing and heating, Ed Eastham, 356 Fannin St., \$7775; elect. work, Neches Electric Co., 259 Crockett St.; brick, Acme Brick Co., San Jacinto Life Bldg.; Livesay & Wiedemann, Archts., San Jacinto Life Bldg.; Fred Taylor, Bldg. Supt. for owner, 2510 McFaddin St. 6-7

Tex., Houston—Houston Ind. School Dist., E. E. Oberholzer, Supt., let contract at \$138,250 to West & Jensen, Second Natl. Bank Bldg., for 36-room addition and shop at Sidney Lanier High School; plumbing, Warren Co., \$10,390; heating, Barber Plumbing Co., 1419 Page St., \$7550; wiring, Alan T. Cook & Co., \$1816; Lamar Q. Cato, Archt.; Robt. J. Cummings, Engr., both Bankers Mort. Bldg.; and contract at \$112,510 to E. G. Macay, Post-Dispatch Bldg., for 27-room addition to James Hogg Junior High School; fireproof, 3 stories; plumbng, Lee Rogerson, 908 Truxillo St., \$8020; heating, Warren Co., 614 Walker St., \$4035; wiring, Alan T. Cook & Co., \$1816; Lamar Q. Cato, Archt.; Robt. J. Cummings, Engr., both Bankers Mort. Bldg.; and contract at \$112,510 to E. G. Macay, Post-Dispatch Bldg., for 27-room addition to James Hogg Junior High School; plumbing, Warren Co., \$6910; heating, Warren-Shivers Co., Inc., 305 Hagerman St., \$6139; wiring, Alan T. Cook & Co., \$2344; B. P. Brscoe, Archt., Second Natl. Bank Bldg.; Supt. Oberholzer also approved preliminary plans for additions to San Jacinto High School for gymnasium and 2 wings, one for 22 classrooms and cafeteria and other for auditorium; final plans for 8-classroom, swimming pool, girls' gymnasium and cafeteria enlargement at Park Junior High School. 6-21 and 8-2

Tex., Plainview—Plainview Ind. School Dist., Winfield Holbrook, Pres., let contract at \$68,931 to Harrison & Smyth for ward school; Kerr & Walsh, Archts., Secur. St. Bldg., Plainview, and Amarillo Bldg., Amarillo. 7-26

Tex., San Antonio—Following sub-contracts awarded on dormitory, classroom building and auditorium at Incarnate Word College for which Kroeger-Brooks Construction Co., 817 Frost Nat'l Bank Bldg., has general contract at \$215,000: Rein. steel, Southern States Steel Co., 503 S. Haskell St., Dallas; steel forms, Concrete Engineering Co., 2814 Pease St.; Carthage Stone steps, Bedford-Carthage Stone Co., Runnels and Belt Sts.; struc. steel, Houston Struc. Steel Co., 3910 Washington St., all Houston; sand, gravel, cement, tile, face brick, Federal Supply Co., 326 Nolan St.; Ox Blood face brick, General Supply Co., 227 S. Salado St.; common brick, Seco Pressed Brick Co., Builders Exch. Bldg.; tile and marble, Thos. L. Nall, 1107 Broadway; cork and "Colormix" cement floors, Sales Service Co., Builders Exch. Bldg.; millwork, Schulze Bros. Manufacturing Co., 110 Idaho St.; cast stone, F. Redondo & Co., 1138 N. Flores St.; painting, Phil Osborn; lumber, San Antonio Building Materials Co., Milam Bldg.; plastering, John P. Healy, Builders Exch. Bldg.; lathing, Ollie Tope, 1400 S. Hackberry St.; roofing and sheet metal, Nelson Roofing Co.; misc. iron, Alamo Iron Works, 130 Santa Clara St., all San Antonio; black board, Gregory Black Board Co., 205 Commerce St., Nashville, Tenn.; Jud & Ormond, 103 N. Flores St.; plumbing and heating at \$27,086; Fred B. Gaenslen, Archt., Builders Exchange Bldg.; Robert Laidlaw, Engr., both San Antonio. 8-2

Stores

Ark., Fayetteville—McAllister Bros. Department Store remodeling and enlarging bldg.; steam heating plant; E. V. Bird Construction Co., Contr.

Fla., Jacksonville—C. H. Hornstein has permit for \$13,000, 2-story brick stores and flats, 2822-26 Main St., for J. Elian.

Fla., Miami—Webster Lumber Co. erect \$10,000 store, 209-21 N. E. 79th St.; conc. block, 1 story, 68x60 ft.; John N. Bullen, Archt., Exchange Bldg.; Vernon J. Posey, Contr., 388 N. E. 90th St.

Ga., Millen—Millen Hotel Co. started work on 2 stores, Gray and Winstrop Sts., one to be occupied by Western Union Telegraph Co.; Nick Economos erecting 2 stores, Cotton Ave. near Daniel St.; 1 and 2 stories.

Ga., Savannah—Savannah Gas Co., Barnard St. near Broughton St., D. H. Levan, Supt., remodel 2-story and basement building; new store front; work started.

La., Lafayette—Maurice Heymann let contract for 1-story, 50x75-ft., brick store, to J. B. Moulton; Wm. T. Nolan, Archt., Canal Bank Bldg., New Orleans. 8-2

La., New Orleans—Casimir Escarch erect store and apartment bldg., Brussels and Broad Sts.; O. Noisen, Contr., 217 Conrad St.

Md., Baltimore—Frank Brown Estate remodel bldg., 324-28 N. Charles St., to be occupied by Hanan & Son, Brooklyn, N. Y.; install single store front, interior decorations, \$20,000; Clyde N. & Nelson Friz. Archts., Lexington Bldg.; John E. Marshall & Son, Contrs., 117 South St., both Baltimore. 8-2

Miss., Bentonia—Dave Segal erect mercantile store; Dolton Lumber Yard, Contr.

Okla., Tulsa—Fred Wolferman, 1108 Walnut St., Kansas City, Mo., erect branch grocery store, 15th St. and Carolina Ave.; Spanish type, 1 story, about 400x130 ft.; Boillot & Lauck, Archts., Orear Leslie Bldg., Kansas City; E. W. Sipple, Asso. Archt.-Contr., 10 E. Third St., Tulsa.

Tenn., Knoxville—Jas. E. Cassady, 1815 N. Broadway, erecting store bldg., Magnolia Ave. near Bertrand St.; 140x10 ft.

Tenn., Knoxville—John Wilson erecting store and apartment bldg., Summers St. and Magnolia Ave.; additional unit later; Albert E. Gredig, Archt., Mercantile Bldg.

Tex., Beeville—Martin & DeLoach have contract to remodel brick store, Washington and Heffermann Sts., to be leased by Perkins Dry Goods Co.

Tex., Corpus Christi—H. N. Key, State Hotel Bldg., Corpus Christi, and D. C. Reed, 304 E. Fifth St., Austin, let contract to J. A. Walsh, Country Club Place, for one-story, 100x90 ft., brick and tile store, Leopard and Black Sts.

Tex., Corpus Christi—C. E. Coleman, Third and Craig Sts., let contract to J. W. Birmingham, Amusu Bldg., for \$30,000 building, Leopard and Sam Rankin Sts., leased to Sears, Roebuck & Co., Chicago; conc. tile and brick, 2 stories, 75x130 ft. 8-2

Tex., Harlingen—A. E. Benolst & Son erect \$22,000 store to be occupied by Sears-Roe-buck Co.; tile and brick, 1 story, 100x140 ft.; R. E. Ewing, Contr.

Tex., San Antonio—Paul Riebe, 177 North St., let contract at \$21,000 to Moeller & Wellbacher, 1211 Willing St., for alteration and addition to 2-story, 34x117 ft., brick building, Rush St., between Market and North Sts.

Tex., San Antonio—Robt. S. Michael, 112 Soledad St., let contract on cost plus basis to Fenstermaker Co., 1018 Travis Bldg., for fireproof store; stone front, 1 story, 3 stories; Robt. B. Kelly, Archt., Milam Bldg.; W. E. Simpson & Co., Consnl. Engrs., Nat'l Bk. of Commerce Bldg. 7-12

Tex., Sweetwater—Rufus Wright and S. I. Edwards erecting store to be leased to Montgomery Ward & Co.

Tex., Sweetwater—J. W. Snell and Tom Cowen erecting store to be leased to Sears Roebuck Co.

Tex., Temple—J. A. Fletcher erect store, Main St., to be leased to Montgomery Ward & Co.; 2 stories, 60x100 ft., maple floors, elect. freight elevator; A. J. Kuykendall also erect second story to building for stock room for Montgomery Ward & Co.

Theaters

Okl., Oklahoma City—A. M. Emenhisler, owner, Victoria Theater, having plans drawn for 3 theaters; Mr. Emenhisler also plans number theaters in Dallas, Tex.; Clarence

C. Bulger, Archt.; E. V. McCright, Contr., both Constr. Indus. Bldg., Dallas, Texas.

Tex., Dallas—A. M. Emenhisler, Oklahoma City, Okla., plans number suburban theater buildings; Clarence C. Bulger, Archt.; E. V. McCright, Contr., both Constr. Indus. Bldg., Dallas. See Oklahoma City.

Tex., Dallas—Publix Theater Corp., 16 E. 42d St., New York, expend \$200,000 to remodel Palace Theater after plans by Graven & Mayger, Archts., 180 N. Michigan Ave., Chicago, Ill.; new stage equipment, new switchboard, stucco and terra cotta front, store addition; Childs-Lasell Co., Contr., Lansing Bldg., Dallas. 8-9

WANT SECTION

THE CLASSIFICATIONS IN THIS SECTION ARE:

Machinery and Supplies

Under this heading are reported requests for data, prices and literature and information on machinery, supplies and miscellaneous materials of a wide variety.

Items in this department are published without charge and these columns are open for the publication of wants of all kinds relating to construction work, machinery, materials and supplies.

Building Materials and Equipment

This division comprises all classes and kinds of materials and equipment used in building and construction projects of every kind.

Bids Asked

Includes bids asked by U. S. Government, States, districts, municipalities, firms and individuals for machinery, materials, supplies and construction work.

Machinery and Supplies

Boiler.—Hunter Machinery Co. (Mechy. Dealers), Marion, N. C.—Wants 50 to 60 h. p. second hand, return tubular boilers, complete; must be insurable 100 lb. pressure or more; western North Carolina delivery.

Bottling and Sterilizing Equipment.—Radium Springs Water Co., 1316 Oak St., Kansas City, Mo.—Wants bottling works and sterilizing equipment.

Cheese Making Equipment.—Senatobia Gin and Ice Co., R. E. Clark, Pres., Senatobia, Miss.—Wants cheese making equipment.

Clayworking Machinery.—Flagler Clay Holding Co., H. E. Black, Daytona Beach, Fla.—Wants data and prices on machinery for manufacturing common and face brick, drainage tile and pottery.

Diesel Engines.—See Generator Sets.

Dry Cleaning and Pressing Machinery.—J. D. Miot, 117 Lincoln St., Columbia, S. C.—Wants prices and data on machinery used in dry cleaning and pressing plants.

Excelsior Machine.—Howard Hickory Co., Hickory, N. C.—Wants second-hand excelsior machine.

Gasoline Locomotives.—Owl Creek Phosphate Co., Carbur, Fla.—Wants 6 to 8-ton gasoline locomotives, 36-in. gauge.

Generator Sets.—Kentucky Electric Development Co., Inc., 317-20 Breslin Bldg., Louisville, Ky.—Wants 15 small a. c. generators from 100 kw-a. up.

Locomotive.—Hodge-Hunt Lumber Co., Inc., Hodge, La.—Wants rod locomotive, 45 to 50 ton, oil burner, in first-class condition; must stand I. C. C. inspection.

Machine Tools.—Newman Machine Co., Jackson St. and Southern Rwy., Greensboro, N. C.—Wants prices and data on 5-foot horizontal boring, milling and drilling machine, motor driven, similar to Giddings & Lewis; Universal turret lathe, motor driven, similar to Warner & Swasey, 4-A capacity 4½"x56"; one motor driven metal cutting saw, similar to Racine.

Pipe.—Sweetwater Oil and Refining Co., Sweetwater, Tex.—Wants 50 miles of 4-in. threaded or plain end pipe for pipe line to Nodle Creek pool.

Pipe Threading Machine.—J. W. Carter, Box 25, New Brookland, S. C.—Wants prices and data on machines for threading small and large pipe.

Resaw.—W. M. Smith & Co. (Mechy. Dealers), Box 1700, Birmingham, Ala.—Wants large circular resaw with 5 or 6 in. saw capable of resawing 2x6, 2x8 and 2x10 pine crating.

Steel Bin.—Ed. P. Phillips Machinery Co., Mutual Bldg., Richmond, Va.—Wants portable steel bin, 40 or 60 ton capacity, with volume-measuring hoppers.

Well Drilling Equipment.—J. B. Bowling, 506 Highland Drive, Fountain City, Tenn.—Wants well drilling equipment, either steam or gasoline engine driven; modern equipment desired.

Fred C. Morgan (Gen. Contr.), Marott Hotel, Indianapolis, Ind., plans to construct some

special equipment for levee building on Mississippi River and wants to get data and prices from manufacturers of crawler traction units with special structural framework to suit the special equipment to be installed; prefers factory that would be interested in taking his plans, letting him supply the special equipment to be assembled and delivered as complete unit.

Stephens Hardwood Co., Inc., Belford, Va.—Wants prices and data on following:

- (1) Boiler—steam, 50 h. p.
 - (2) Engine—steam, 30 h. p.
 - (3) Electric Motors—1 to 35 h. p.
 - (4) Sawmill—short log and regular
 - (5) Woodworking Machinery — for making locust insulator pine, oak brackets.
- Chas. H. Baxter, Contr., 305 Houston Bldg., San Antonio, Tex.—Wants prices on following:
- (1) Concrete Mixer
 - (2) Hoist (gasoline engine operated)
 - (3) Wheelbarrows.

Miscellaneous

Automobile Bodies, etc.—Howard Adams, care J. O. Singletary, Fort Meade, Fla.—Wants prices and data on special bodies and unoverslant parts for light cars.

Canning Outfits (Fruit and Vegetable).—W. D. Wilson, 305 Curtice Bldg., 813 Walnut St., Kansas City, Mo.—Wants data and prices on small-size vegetable and fruit canning outfits.

Celoglass.—E. L. Brillhart, Pharr, Tex.—Wants prices on celoglass sufficient to cover ten 25x125-ft. greenhouse.

Concrete Building Forms (Double Walls).—Rev. Hugh Isbell, Carbondale, P. O. Tulsa, Okla.—Wants prices and data on steel concrete building forms for double concrete walls for residences.

Time Recording Clock.—D. D. Dougherty, Appalachian State Normal School, Boone, N. C.—Wants time recording clock.

Wood Wheels.—Carolina Machinery Co., Sumter, S. C.—Wants prices and data from manufacturers of wood wheels for automobiles, trucks and other vehicles.

Rice Mfg. and Distributing Co., R. L. Rice, Sr., Pres., 127-31 Central Ave., Laurel, Miss.—Has patent on rumble seat tops and wants prices and data on following:

- (1) Awning Material—stripped, 8 ounce
- (2) Fasteners (Lift-The-Dot)
- (3) Celluloid.

Building Material and Equipment

R. B. Perkins, Archt., P. O. Box 151, Altus, Okla., wants prices on following for \$21,000 dwelling, Hollis, Okla.:

Cast Stone
Electric Refrigerators
Flooring—hardwood, tile
Incinerator
Mail Chutes
Roofing (hip)—asbestos shingle
Tile—interior.

G. Tandy Smith, Archt., Guthrie Bldg., Paducah, Ky., wants prices on electric refrigerator for \$12,000 dwelling, Mayfield, Ky.

J. T. Lane, Pres., Lane College, Jackson, Tenn., wants prices on following for heating plant and improvements to buildings:

Boiler
Flooring—hardwood
Library Supplies
Pumps and motors
Roofing—asbestos shingle, built-up.

G. Tandy Smith, Archt., Guthrie Bldg., Paducah, Ky., wants prices on following for \$35,000 addition to church, Mayfield, Ky.:

Flooring—hardwood, tile

Limestone

Roofing (hip)—tin

Ventilaotrs.

H. S. Epstein, 1919 Avery Court, Louisville, Ky., wants prices on following for \$37,500 apartment:

Electric Refrigerators
Flooring—linoleum, tile
Roofing (hip)
Tile—wall.

F. T. Blackburn, Contr., 116 Cherry St., Clarksdale, Miss., wants prices on following for \$53,000 hotel:

Cast Stone
Electric Refrigerators
Elevators
Flooring—tile, composition
Marble
Metal Ceilings
Metal Doors
Roofing—built-up
Steel Sash and Trim
Tile—hollow.

Chas. H. Baxter, Contr., 305 Houston Bldg., San Antonio, Tex., wants prices on following for \$50,000 bank:

Dumb Waiters
Electric Refrigerators
Flooring—oak, linoleum, tile
Mail Chutes
Metal Ceilings
Roofing—slate, hexagon tile
Tile—gypsum

Terra Cotta Trim

Vault Door

Wire Glass

Brass and Bronze Work.

Scott & Peters, Archts., Staples-Powell Bldg., Mobile, Ala., wants data and prices on all materials for hospital, Atmore, Ala., church, Jackson, Ala., \$12000 bank, Jackson store, Fairhope, Ala., and especially refrigeration equipment for 24-apartment building, Mobile.

Kentucky Electric Development Co., Inc., 317-20 Breslin Bldg., Louisville, Ky., wants prices on following for small Diesel light and power plants in various cities:

Steel Buildings.

George Mackay & Co., Archts., Ocala, Fla., wants prices on following for \$35,000 parochial school:

Flooring—tile
Roofing—tile
Terra Cotta Trim.

Bids Asked

Astromic Time Switches.—Chief Clk., Dept. of Commerce, 19th St. and Pennsylvania Ave., Washington, D. C.—Bids Aug. 30 for 150 astromic time switches for use in Dept. of Commerce.

CONSTRUCTION DEPARTMENT

Manufacturers Record

Boilers.—See Pumping Equipment.

Brick.—See Sewer Material, Fittings, etc.

Bridge.—San Antonio, Tex. See Construction News—Bridges, Culverts, Viaducts.

Bridge Lighting System.—State Roads Comm., Baltimore, Md.—Bids Aug. 21 for electric lighting system on highway bridge over Susquehanna River, Havre de Grace; John N. Mackall, Chmn.

Bridges.—Huntington, W. Va. Bids for 3 bridges. See Construction News—Bridges, Culverts, Viaducts.

Bridge.—Cumberland, Md. See Construction News—Bridges, Culverts, Viaducts.

Bridge.—Port Gibson, Miss. See Construction News—Bridges, Culverts, Viaducts.

Calcium Chloride.—Dist. Comms., Washington, D. C.—Bids Aug. 23 for 60 tons calcium chloride, or calcium magnesium chloride.

Chairs.—Dist. Comms., Washington, D. C.—Bids Aug. 28 for 1000 assembly hall chairs.

Deep Well Pump.—See Water Well and Equipment.

Dredging.—U. S. Engr. Office, Norfolk, Va.—Bids Sept. 5 for dredging channel, Hampton Roads to Newport News; information on application.

Dredging.—U. S. Engr. Office, 300 Custom House, Baltimore, Md.—Bids Sept. 13 for dredging in Crisfield Harbor and Cambridge Harbor, Maryland; information on application.

Electric Plant and Distribution System.—Town of Columbia, N. C. W. J. White, Mayor—Bids Aug. 20 for following for electric plant: Construction of buildings; Diesel oil engine generating sets and switchboard; high tension distribution system in town; plans, etc., at office of W. H. McClees, Clk.

Elevator.—Chief Clk., Dept. of Interior, Washington, D. C.—Bids Sept. 5 for installing electric freight elevator at St. Elizabeth Hospital, Washington.

Ferry Landing.—John M. Murch, County Auditor, Galveston, Tex.—Bids Sept. 4 for constructing ferry landing at Ninth St. slip on property of Galveston Wharf Co., Galveston; dredge 6000 cu. yds., untreated and treated timber, struc. steel, the rods, treated sheet piling, treated and untreated round piling.

Ferry Landing.—John M. Murch, County Auditor, Galveston, Tex.—Bids Sept. 4 for constructing ferry landing at Port Bolivar; dredging 50,000 cu. yds. to 240,000 cu. yds. of material, including untreated timber, treated timber, struc. steel, the rods, treated sheet piling, treated round piling, untreated round piling.

Filter Equipment.—See Water Purification Plant.

Fire Hydrants.—See Water Works System.

Generator.—See Pumping Equipment.

Generating Set.—See Electric Plant and Distribution System.

Gravel.—See Sewer Material, Fittings, etc.

Heating Boiler.—Treasury Dept., Office of Supervising Archt., Washington, D. C.—Bids Aug. 21 for removing old boiler and furnishing and installing of new heating boiler, etc., in U. S. Post Office, Wilmington, N. C.

Incinerator.—Bd. of Comms., Charlotte, N. C.—Bids Aug. 29 for incinerator; consist of 2 or more furnaces of modern approved type with capacity 120 tons 8 hour day.

Jetty.—State Roads Comm., 601 Garrett Bldg., Baltimore, Md.—Bids Aug. 21 for constructing timber jetty in Atlantic Ocean at foot of Talbot St. in Ocean City, Worcester County, Cont. Wo-60.

Khaki Suiting.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids Aug. 31 for 300,000 yds. of khaki suiting for delivering to Philadelphia, Pa.

Levee.—War Dept., Mississippi River Comm., 1st and 2nd Dists., 1006 McCall Bldg., Memphis, Tenn.—Bids Aug. 23 for constructing 610,500 cu. yds. of earthwork in levees designated as follows; number, station, kind of work, estimated net yardage and height: Lower St. Francis Levee Dist.—24, Spur 52/4, below 138R, repair end, 7500, 25.0; 26, 82/45-84/15, 169 R; loop new and banquette, 240,000, 16.0; 28A, 206/6-206/24, 279 R enlargement, 48,000; 20.0; 28B, 206-24-207/34, 279 R, enlargement, 145,000 18.0; 28 C, 207/34-207/47, 279 R enlargement, 37,000, 18.0; White River Levee Dist.—30, 17/0-18/0, 323 R, enlargement, 55,000, 20.5; White River Levee Dist. of Woodruff, Prairie and Monroe Counties, Ark.—34, 995-1023, 153 R above mouth White River, new work, 78,000, 13.2.

Machine Tools.—Bureau of Supplies and Accounts, Washington, D. C.—Bids Aug. 21 for motor driven lathes and drill press.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, Gen. Pur. Agt., Washington, D. C.—Bids Aug. 20 for following; Sch. 2463:

Strap iron, steel drill rod, galv. coil chain, brass steam cocks, machine bolts, brass bolts, nuts, rivets, nails, machine and cap screws, drawer pulls, lettering brushes, etc.

Motor Trucks.—Dist. Comms., Washington, D. C.—Bids Aug. 22 for 6 auto truck dump chassis.

Packing House Equipment.—Director of Purchase and Sales, Dept. of Agriculture, Washington, D. C.—Bids Aug. 21 for 150 hog gambrel trolleys, 150 steel hog gambrels, 50 beef trolleys, 50 fore quarter trolleys, 10 cut meat trees, 10 single prong sheep shackles, etc.

Paving.—Rayville, La. See Construction News—Roads, Streets, Paving.

Pipe (Vitrified).—See Sewers.

Pipe (Reinforced Concrete).—See Sewers.

Pipe (Cast Iron).—Water Works System.

Pipe (Vitrified).—See Sewers.

Pipe (Cast Iron).—See Water Works, Dam and Appurtenances.

Police Uniforms.—State Highway Dept., Dover, Del. Bids Sept. 4 for 36 State Highway Police Uniforms.

Portland Cement.—See Sewer Materials, Fittings, etc.

Power House.—City of Oxford, Miss.—Bids Sept. 4 for brick and conc. power house, 42x12 ft.; Frank P. Gates Company, Archt. and Engr., 507 Edwards Hotel Bldg., Jackson.

Press Cloth.—Dist. Comms., Washington, D. C.—Bids Aug. 27 for 12,000 yds. of cotton press cloth.

Pumping Equipment.—City of Dallas, Tex., M. G. James, Sec.—Bids Sept. 7 for furnishing and erecting following pumping equipment at Bachman's Dam: Two 15 m.g.d. turbine driven pumping units, complete with all auxiliaries; three 15 m.g.d. motor driven pumping units, complete with motors; two 1000 kw. turbo-generators, complete with all auxiliaries; three 300 h.p. water tube boilers; plans and specifications on file at office of J. B. Winder, Ch. Engr., Water Dept.

Pumping Units.—See Pumping Equipment.

Reinforced Concrete.—See Water Works, Dam and Appurtenances.

Reinforcing Steel.—See Sewer Material, Fittings, etc.

Roads.—State of West Virginia—Bids for 3 roads. See Construction News—Roads, Streets, Paving.

Roads.—Live Oak, Fla. See Construction News—Roads, Streets, Paving.

Roads.—State Highway Dept., Dover, Del. Bids Sept. 4 for following roads: Cont. 90, 3.77 mi. Bay road, 13,500 cu. yd. excavation and borrow, 6580 cu. yd. cement conc. pavement or slag aggregate; Cont. CS-63-A, 4.15 mi. Double Bridges-Bridgeville road, 3350 cu. yd. cement conc. pavement (slag aggregate) or 29,200 sq. yd. 4-in. sand asphalt surface course.

Road.—Maryland State Roads Comm., Baltimore. See Construction News—Roads, Streets, Paving.

Rock.—U. S. Government Engrs., Jacksonville, Fla., and Sub-Office, U. S. Reservation, Miami Beach, Fla.—Bids Aug. 29 for 5700 sq. yd. rock; specifications on file at Exchange.

School Supplies and Equipment.—Bd. of Awards, Baltimore, Md.—Bids Aug. 22 for furnishing supplies, tools, machinery and equipment for Boys' Vocational School; specifications from office of Director of Business Management of School Bd.

Sewers.—Bd. of Awards, Baltimore, Md., Milton J. Ruark, Sewerage Engr.—Bds Aug. 22 for sanitary sewers and storm drains in sewer district H-1, Storm Water Contr. No. 117; work includes: 2020 ft. 60-in., 642 ft. of 54-in., 198 ft. of 36-in., 74 ft. of 33-in., 753 ft. of 27-in., and 1114 ft. of 24-in. diam. rein. cone pipe drain; 1485 ft. of 18-in. and 21-in. diam. vitrified pipe drain; 2719 ft. of 12 and 15-in. diam. vit. pipe sewer and drain; 4875 ft. of 8 and 10-in. diam. vit. pipe house connections; 5500 ft. of 4 and 6-in. diam. underdrain; 708 vertical ft. standard manholes.

Steel Wheels.—Norfolk & Western Ry. Co., Clyde Cocke, Pur. Agt., Room No. 351, N. & W. Rwy. Bldg., Roanoke, Va.—Bids Aug. 22 for 100 wrought steel wheels, Contr. Serial AA-538.

Streets.—Richmond, Va. See Construction News—Roads, Streets, Paving.

Streets.—Baltimore, Md. See Construction News—Roads, Streets, Paving.

Street.—Knoxville, Tenn. See Construction News—Roads, Streets, Paving.

Street.—Hinton, W. Va. See Construction News—Roads, Streets, Paving.

Tank and Tower.—See Water Works System.

Traveling Crane.—City of Oxford, Miss.—Bids Sept. 4 for 2 ton hand operated traveling crane.

Turbine.—See Pumping Equipment.

Water Purification Plant.—City of Dallas, Tex., M. G. James, Sec.—Bids Sept. 7 for building 32,000,000 gal. per day water purification plant; work to be let in two contracts: General contract to include construction work, such as basins, buildings, etc.; Contract for filter piping and equipment to cover furnishing and installation of filter equipment proper; plans and specifications may be obtained from David Morey, Jr., 417 Praetorian Bldg., Dallas.

Water Well and Equipment.—R. E. Franklin, Commr. Public Utilities, Jackson, Tenn., E. R. Dike, City Engr.—Bids Sept. 11 for well (approximately 14-in. 150 ft. deep), near plant of Jackson water works; also for equipping well with centrifugal deep well pump and electric motor together with necessary controls; specifications on application.

Water Works, Dam and Appurtenances.—City of Graham, Tex., A. B. Eddleman, Mayor, Hawley & Freese, Consil. Engrs., Capps Bldg., Fort Worth—Bids Aug. 23 for impounding and storage dam, spillway, construction tunnel, well house and appurtenances, involving 250,000 cu. yds. wetted and rolled embankment; 110 cu. yds. re.n. conc.; 10,000 sq. yds. paving in spillway; 17,000 yds. stone riprap; 22,000 cu. yds. solid rock excavation; 2500 squares sodding; 2000 sq. ft. steel sheet piling; c. i. pipe; valves and appurtenances.

Water Works System.—Bd. of Comms., Mobile, Ala.—Bids Sept. 4 for installation of following mains and accessories, in connection with proposed improvements to water works system: Div. 1—13,800 ft. 24-in. pipe Class C; three 24x8-in. blow off valves; three 24-in. bevel gear valves with bypass; four 24x24 tapping valves and sleeve; 6 manholes and covers; exterior piping at pumping plant; Div. 2—50 ft. of 10-in. c. i. pipe Class C; 3750 ft. of 8-in. c. i. pipe Class C; 6700 ft. of 8-in. c. i. pipe Class B; 18,450 ft. of 6-in. c. i. pipe Class B; six 10-in. gate valve hub end; ten 8-in. gate valve hub end; twenty 6-in. gate valve hub end; 43 fire hydrants; 400 cu. ft. brick masonry in piers; 2 cu. yds. 1-2-4 conc. in foundations; Div. 3—60,000 gal. capacity tank on 75 ft. tower; 100,000 gal. capacity tank on 75 ft. tower; 100,000 gal. capacity tank on 110 ft. tower; 150,000 gal. capacity tank on 75 ft. tower; 150,000 gal. capacity tank on 110 ft. tower; only one tank to be constructed; Wright Smith, City Engr.

Wire Fabric.—Dist. Comms., Washington, D. C.—Bids Aug. 22 for 2500 sheets fabric reinforcing wire.

Lockwood Greene Engineers, Inc.

Lockwood Greene Engineers, Inc., has purchased from Lockwood, Greene & Co., Inc., the entire business of its engineering division, including its appraisal department. Lockwood Greene Engineers, Inc., is a Massachusetts corporation formed by men who for many years have been continuously associated with the engineering activities of Lockwood, Greene & Co., Inc. The new company will continue to maintain the present offices in New York, Boston, Spartanburg, Chicago, Charlotte, Atlanta and Montreal, and will take over all contracts without change in its operating personnel.

An association is maintained with Walter W. Cook and George F. Blount (formerly of the architectural department of Lockwood, Greene & Co., Inc.), under the firm name of Cook & Blount.

Stone & Webster Engineering Corporation.

The Stone & Webster Engineering Corporation, Boston, has been formed with a capitalization of \$9,500,000 and has taken over from Stone & Webster, Inc., its construction and engineering business and its interest in Ulen & Company. It has also acquired from the North American Company its engineering and construction company known as McClellan & Junkersfeld, Inc. G. O. Muhlfeld is president of the new company.

\$2,500,000 Cement Plant for San Antonio.

Company Organized and Financed by Texans Begins Work on 1,000,000-Barrel Plant—Equipment Orders Placed.

San Antonio, Tex., August 13—[Special]—Announcement was made here today of the formation of the Republic Portland Cement Company, by J. H. Smith, president of the new corporation. The company will immediately erect a modern, 1,000,000-barrel per year cement plant costing approximately \$2,500,000, according to Mr. Smith. The announcement further stated that the site had been purchased, practically all equipment ordered and is now in process of manufacture, and that every effort was being made to rush the plant to an early completion.

The new company is headed by J. H. Smith, president, W. M. Thornton, vice-president in active charge, F. A. Smith, J. W. Young, and A. F. Sayers. Engineering work for the company is being done by Terrell Bartlett, San Antonio, and Richard K. Meade, Baltimore, a widely known cement authority, who will act as consulting engineer.

The new plant will be located a short distance north of San Antonio, between the main lines of the M. K. & T. and Missouri Pacific railroads, near the Austin highway. The site for the plant consists of 600 acres of ground, and according to tests conducted by Mr. Meade, consulting engineer, will provide sufficient raw materials for more than 50 years of operation. The strata found here is said to be particularly adapted to the manufacture of a high early strength and quick hardening cement.

Mr. Thornton, together with Messrs. Bartlett and Sayers have completed an inspection trip on which they visited practically all the modern cement plants in the United States, and the knowledge thus gained has enabled the company to take advantage of the very latest developments in modern cement manufacture.

This plant will manufacture cement by the wet process and its major machinery units will consist of two 11 by 250-foot kilns for burning, four 8 by 7 by 40-foot compeb mills for grinding, two 10 by 100-foot coolers, and a large Dixie hammer mill for crushing. Orders for the kilns, mills and coolers have already been placed with the Allis-Chalmers Manufacturing Company, Milwaukee, Wis., and the first of these will be shipped about September 25. The balance of the equipment will be shipped as rapidly as provision can be made for its installation. Contracts have been let to the General Electric Company, Schenectady, N. Y., for the installation of all electrical equipment, which includes four 800 horsepower motors, two 300 horsepower units, and about eight units of 100 horsepower each. A 7.5-ton P. & H. electric crane made by the Harnischfeger Corp., Milwaukee, Wis., will be used to handle all raw materials.

The new product will be marketed under the trade name of "Longhorn" Portland cement and the familiar head of the Texas Longhorn steer will be used as a trade-mark.

The company will build a modern community to house its employes as soon as the main buildings are completed. This community will be known as Longhorn, Texas, and will be the shipping point for the product.

Construction work is already under way at the site, with the M. K. & T. and M. P. railroads laying tracks to the plant property. Two wells have been drilled for water and construction equipment will be on the ground this week. A contract has been signed with the San Antonio Public Service Company for electric power and that company will build a large sub-station to serve the new industry. Natural gas

will be purchased from the Southern Gas Company, San Antonio.

The Republic Portland Cement Company is in every sense a Texas concern; owned entirely by native Texans; selling its product in Texas; and formulating its policies with regard to Texas' needs and conditions.

In recent years J. H. Smith, president of the new company, has practically retired from the contracting field and has been devoting his efforts to the development of his San Antonio properties, which include, at this time, the Plaza Hotel, a 35-story office building, now under construction, and several smaller buildings located on what was formerly known as Bowen's Island. It has been known for some time that Mr. Smith contemplated the building of a cement plant, but this is the first official announcement of the details concerning it.

\$750,000 Additions for Mobile Hotel.

Mobile, Ala.—Plans have been made by the Battle House Hotel Company to make extensive changes and add two additional floors to the Battle House, at a cost of approximately \$750,000. Changes in the basement will involve the installation of new wash rooms, lavatories and boot black stands and the installation of ice-making machinery and mechanical air-cooled refrigeration. The lobby on the ground floor will be re-arranged and the grand cafe improved, with provision made for public lobbies and store space. Additional private dining rooms will be provided on the mezzanine floors, with other facilities, and from the third to the sixth floor, inclusive, bath rooms will be remodeled and new fixtures installed. The additional floors will provide 120 rooms and baths, bringing the total number of rooms in the hotel to 350. Hutchinson, Holmes and Hutchinson, Mobile, are the architects. The company is considering details for refinancing by selling an additional \$1,000,000 of securities, funds from which will be used to pay the cost of improvements.

\$1,000,000 Scottish Rite Temple Plans Progressing.

The final draft of plans for a \$1,000,000 temple in Baltimore for the Scottish Rite of Free Masonry of Maryland, will soon be submitted to the Scottish Rite Holding Company, J. Edward Richardson, president, Baltimore, for approval. The site for the temple comprises an area 300 by 310 feet, at Charles Street avenue and 39th street, and of this area the building will occupy 185 by 192 feet, providing an exceptional opportunity for landscaping and approaches. Actual construction is expected to begin early in 1929. Clyde N. and Nelson Friz, Baltimore, and John Russell Pope, New York, are the architects.

In order to raise an additional \$500,000 to complete the \$1,000,000 building fund, plans have been made for a financial campaign beginning October 15, to be conducted exclusively among the 3400 members of the Scottish Rite of Free Masonry in Baltimore and Maryland.

\$1,500,000 Additional Unit for St. Louis Hospital.

St. Louis, Mo.—Rev. Rufus D. Putney, superintendent and chaplain of Saint Luke's Hospital, announces plans for an additional unit to be known as the John Fowler Diagnostic Clinic and Research Laboratory, for which Mrs. Cora Ligett Fowler made a bequest of \$1,500,000 in her will. A year will probably be required to settle Mrs. Fowler's estate. In the meantime the hospital will collaborate with Le Beaume & Klein, St. Louis architects, in the preparation of plans for the new unit. One floor will be devoted to operating rooms, pathological laboratory and X-Ray department, and an addition of from 100 to 150 beds is contemplated.

Improved Water Facilities for Texas Towns.

San Benito, Tex.—For the past several months the Central Power and Light Company, of San Antonio, has been active in the enlargement and improvement of water systems of a number of towns in the Rio Grande valley. A 1,000,000-gallon filtration plant was recently completed here and water mains extended to various sections of the city, while plans have been completed for a 150,000-gallon elevated storage tank. Plans are also under way for enlarging the filtration plant at Mercedes to a capacity of 1,000,000 gallons each 24 hours, and for rebuilding the distribution system and installing fire hydrants in the business section.

A modern filtration plant of 750,000 gallons capacity every 24 hours was completed about a year ago at Edinburg and more recently the water distribution system was rebuilt. Large cast iron mains have been laid in the commercial section and additional mains extended into the residential section. Approximately 85 fire hydrants have been installed. The capacity of the water plant at McAllen has been increased from 600,000 to 900,000 gallons each 24 hours, improvements including a 250,000-gallon underground concrete reservoir and a new 150,000-gallon elevated steel tank, while the commercial section has been completely looped with large mains to replace an old system.

\$400,000 School Contracts in Houston.

Houston, Tex.—Contracts have been awarded by the Board of Education of Houston Independent School District for the erection of additions to three school buildings here to cost approximately \$400,000. The largest contract, calling for an addition of 36 rooms to the Sidney Lanier school, was awarded to West & Jensen, Houston, at \$138,250, while E. G. Maclay was awarded contract for an addition to the James Hogg school, at \$112,510, and the Bace Construction Company for an addition to the Stonewall Jackson school, at \$87,100. Equipment contracts were awarded the Warren Company, Barber Plumbing Company, Alan T. Cook & Company and Warren Shivers & Company, all of Houston.

Preliminary plans have been approved for additions to the San Jacinto High School, to include a gymnasium and two wings, one to contain 22 class rooms and a cafeteria and the other an auditorium, and final plans have been approved for the addition of eight class rooms, swimming pool, girls' gymnasium and enlargement of the cafeteria of the Park junior high school. The work is financed by a \$4,000,000 bond issue.

New Feldspar Grinding Mill in North Carolina.

The Feldspar Milling Company has been permanently organized for the construction and operation of a feldspar grinding mill at Bowditch, N. C., of 100 tons daily capacity. Contracts for machinery have been placed and the construction of the plant is well under way. It is expected to be ready for operation early in November. Officers of the company include C. P. Rogers, Tryon, N. C., president; C. S. Smart, Concord, N. C., vice-president; H. A. Dunham, Asheville, secretary-treasurer, and Rudolph Glatly, Burnsville, N. C., mill superintendent.

Two Gas Companies Purchase New Equipment.

The Florida Public Utilities Company, West Palm Beach, has purchased a Steere multiple washer for its gas plant at West Palm Beach, from the Semet-Solvay Engineering Corporation, New York. The apparatus will have a capacity of 3,000,000 cubic feet in 24 hours. A quantity of Steere welded steel pipes, 24 and 30 inches, with fittings, has been ordered by the Louisville Gas and Electric Company of Louisville, Ky., from the Semet-Solvay Engineering Corporation. Flanges will be of the Van Stone type.

Two Chattanooga Banks Consolidate.

Chattanooga, Tenn.—The Hamilton National Bank and the Hamilton Trust and Savings Bank, of this city, have consolidated under the name of the former with a capital increase to \$2,000,000. The Hamilton Securities Company will be organized with a capital stock of \$500,000, which will be offered to shareholders of the Hamilton National Bank on the basis of one share of the new stock for every four shares held in the bank. The consolidation gives the Hamilton National Bank an invested capital of \$4,000,000 and resources, including trust funds, of more than \$30,000,000, it is said.

\$1,000,000 Fort Worth Building Contracted.

Fort Worth, Tex.—The Hewitt Construction Company, Houston, supervising construction for the Fort Worth Properties Corporation, which is erecting a \$1,000,000, 18-story, Electric Building at West Seventh and Lamar streets, awarded general contract to the L. E. Myers Construction Company of Chicago and Dallas. Foundation for the building has been completed. Wyatt C. Hedrick, Inc., Fort Worth, is the architect.

\$1,189,000 Road Contracts in Alabama.

Montgomery, Ala.—Contracts have been awarded by the State Highway Commission for road and bridge projects to cost more than \$1,189,000, embracing 69.67 miles of grade and drainage construction and 15.40 miles of concrete paving, in addition to a large number of bridges. The largest contract was awarded the C. A. C. Construction Company, Daytona Beach, Fla., at \$232,042, for grade and drainage construction on 13.28 miles in Jackson County.

Site for \$800,000 Dallas Y. M. C. A. Building.

Dallas, Tex.—Negotiations are being completed for the purchase of a site on Ervay street, between Federal and Patterson streets, for the erection of an \$800,000 central building for the Young Men's Christian Association. A club building for street and newsboys will also be provided at a cost of \$50,000, while a branch building will be erected west of the Trinity River at a cost of \$150,000 and a branch for negroes to cost \$175,000. Edward T. Moore is chairman of the building committee.

Plans Wood-Preserving Plant in Mississippi.

Columbus, Miss.—The T. J. Moss Tie Company, St. Louis, has purchased a site of 40 acres here for a wood-preserving plant and will begin construction immediately with its own forces. The site was purchased from C. F. Sherrod and is located west of the junction of the Frisco and C. & G. railroads, by which the plant will be served. About 100 men will be employed initially.

\$300,000 Pipe Line Equipment Contract Let.

Enid, Okla.—A contract has been awarded to the Worthington Pump and Machinery Corporation, New York, at approximately \$300,000, for the equipment of compressor stations incident to the construction of the \$2,500,000 pipe line from the gas fields of West Texas to Enid, for the Consolidated Gas Utilities Company, Oklahoma City.

Chemistry Building for University of Tennessee.

Knoxville, Tenn.—Bids will be opened August 30 for erecting a 4-story chemistry building for the University of Tennessee, the structure to be of brick and similar to the new physics and geology building now under way, for which A. H. Whisman is the contractor. Barber & McMurry, Knoxville, are the architects.

**250-Mile Landscape Project for Gulf Coast—
Corpus Christi Plans \$1,250,000 Bond
Issue to Improve Bay Front.**

Corpus Christi, Tex.—Plans of Gutzon Borglum for a landscaping project along the Gulf Coast between Corpus Christi and Brownsville, have been outlined in detail in a 16-page booklet received by the Corpus Christi Chamber of Commerce from the Argus Publishing Company of San Antonio. The plans provide for converting the 250-mile highway from Corpus Christi to Brownsville into a boulevard lined on both sides with native shrubbery. Corpus Christi interests have already secured 10,000 date palms to be planted this year and David Fairchild, explorer of the United States Department of Agriculture and head of the plant department, who recently inspected the route of the proposed boulevard, is said to be engaged in securing shrubbery to beautify the entire stretch.

The Borglum plan, which involves the improvement of the bay front in Corpus Christi at an estimated cost of \$1,250,000, has been approved by a joint committee of the City Commission and the Chamber of Commerce and it is understood that a bond issue will soon be submitted to a vote to provide funds to finance the improvements. The highway project is sponsored by a commission, of which John H. Shary, Mission, Tex., is chairman.

Five Planes Ordered for Air Mail Lines.

New Orleans, La.—The St. Tammany-Gulf Coast Airways, Inc., of this city, William De Wald, operations manager, has ordered five Fokker Super-Universal airplanes, motored with "Wasp" engines manufactured by the Pratt & Whitney Aircraft Company, Hartford, Conn. Four of the planes will be used on the Mexico City-New Orleans line and the fifth on the Atlanta-New Orleans line. The machines will have a maximum speed of 148 miles per hour and a cruising speed of 110 miles per hour.

\$840,700 Atlanta City Hall Contract Let.

Atlanta, Ga.—General contract for the erection of Atlanta's new city hall has been formally awarded to the National Construction Company, Atlanta, at \$840,700, this bid having been recommended by the special city hall committee of City Council and the contract committee of the Atlanta Bond Commission. The structure will be 15 stories, of reinforced concrete and steel frame construction, with stone and terra cotta exterior and tile roof. G. Lloyd Preacher & Company, Inc., of Atlanta, are the architects.

Contract for \$400,000 Federal Reserve Building.

Memphis, Tenn.—Upon the recommendation of the local board, general contract for the erection of the \$400,000 Memphis branch building of the Federal Reserve Bank of St. Louis, has been awarded to the H. J. Gilbertson Construction Company, Memphis. Mauran, Russell & Crowell, St. Louis, are the architects, and Jones & Furbinger, Memphis, associate architects. W. H. Huff, St. Louis, is the structural engineer. W. H. Glasgow is the managing director of the Memphis branch of the Federal Reserve Bank.

Bids on 610,500 Cubic Yards Levee Construction.

Memphis, Tenn.—The Mississippi River Commission, First and Second Districts, will receive bids at its office in the McCall Building here, until August 23, for the construction of approximately 610,500 cubic yards of earthwork in the Lower St. Francis Levee District, White River Levee District and the White River Levee District of Woodruff, Prairie and Monroe counties, Arkansas.

Textile Activity at Burlington, N. C.

Burlington, N. C.—The E. M. H. Knitting Mills, Inc., capitalized at \$25,000, have begun the operation of their plant in a new building, machinery consisting of 41 knitting machines, 9 loopers, with dyeing and finishing machinery to handle 1600 dozen men's fancy half hose weekly. L. B. Williamson is president and treasurer of the company.

Construction is progressing on the plant of the B. V. May Hosiery Mills and all building work is expected to be finished before September 1. Work is also being rushed on the \$1,000,000 full fashioned hosiery mill, with foundations in and walls going up. It is planned to have the first installation of machinery completed and in operation by the fall. The Carolina Yarn and Supply Company has organized with a capital stock of \$100,000 to handle silk, rayon and cotton yarns and will cover North Carolina territory, catering to manufacturers. Edgar P. Henderson and Z. V. McClure are principals in the enterprise.

Charlotte Asks Bids on Incinerator.

Charlotte, N. C.—The Board of Commissioners will receive bids August 29 in the council chamber of the city hall for the construction of an incinerator for destroying garbage, rubbish, waste, trash, dead animals and other refuse. The incinerator is to consist of two or more furnaces of modern type with a capacity to destroy 120 tons of average city-run garbage and refuse in a day of 8 hours and is to be housed in a fireproof building with reinforced tile roof and radial brick chimney not less than 100 feet high.

Contracts on 11-Story Galveston Building.

Galveston, Tex.—The American National Insurance Company awarded contract to the Raymond Concrete Pile Company, New York, for piles and to J. W. Woodruff, Galveston, for excavating and underpinning an 11-story building, as an annex to the company's home building. The structure will be of steel frame, reinforced concrete, brick and stone, with two sides of colored velour brick. It will be L-shaped, 43 by 120 by 84 feet, and will be equipped with three elevators. Andrew Fraser, Galveston, is the architect.

**West Virginia Hydro-Electric Company
Incorporates.**

Charleston, W. Va.—The West Virginia Hydro-Electric Company has been organized to develop power in Raleigh and Summers County, West Virginia. The main offices of the company will be maintained at Charlottesville, Va., its authorized capital stock to consist of 25,000 shares of no par value. Incorporators include Thomas Richardson, L. W. Van Bibber, Newton Jackson and E. M. Whitten, all of Charlottesville, and F. W. King of Clifton Forge, Va.

**Wisconsin Firm Builds Milk Condensery in
Missouri.**

Marshall, Mo.—The Page Milk Company, Merrill, Wis., has awarded contract for the construction of a milk condensery here, 100 by 242 feet, local contractor to handle the work. It is estimated that the plant will cost \$220,000, including equipment which has been purchased.

Texas Sulphur Company Building 114 Dwellings.

The Texas Gulf Sulphur Company, Inc., New York, recently awarded contract to the Vaughn Lumber Company, San Antonio, Texas, for erecting 114 dwellings at Newgulf, a sulphur development near Wharton, Tex. The dwellings, of three, four and five rooms, are being erected at the rate of two for every three working days.

FINANCIAL NEWS

Bond Issues Proposed

Ala., Columbiana—Sewer—Town, D. S. Lightcap, Mayor, receives bids Aug. 20 for \$24,000 6% general obligation, Series A bonds; Robt. L. Totten, Inc., Engrs., Brown-Marx Bldg., Birmingham.

Ala., Homewood, Birmingham—School—Town voted \$25,000 bonds. 7-19

Ark., Hatfield—Trustees of School Dist. 22, Polk County, plan selling, in near future, \$20,000 bonds. 7-26

Ark., Hot Springs—Bd. of Dir. Rural Special School Dist. 9, H. Humphreys, Pres., receives bids Aug. 21 for \$25,000, \$500 and \$1000 denom. not to exceed 5% bonds.

Ark., Hot Springs—City, Leo P. McLaughlin, Mayor, voted \$64,000 bonds: \$23,000, street cleaning equipment; \$41,000, fire fighting equipment. 7-12

Ark., Magnolia—Street—City, Dist. No. 4 plans selling bonds in about 30 days.

Florida—Florida Inland Navigation Dist., Daytona Beach, considering selling \$1,887,000, East Coast Canal, Chas. F. Burgman, Chmn., 4% bonds; provide funds to purchase lands for East Coast Canal. 7-5

Fla., Daytona Beach—Water Works—City contemplates voting \$400,000 bonds. Col. Earl Wheeler, City Mgr.

Fla., DeLand—Volusia County Commsr. will probably call election in Fourth Dist. Sept. 11 on \$36,000 bonds, to purchase right of way State Road No. 4, Tomoka River to Daytona Beach. 8-2

Fla., Fort Myers—Lee County Bd. of Public Instruction, J. Colin English, Sec., receives bids Aug. 22 for \$50,000 6% \$1000 denom. Special Tax School Dist. 11 bonds. 8-2

Fla., Jacksonville—Sewer—City Comm. may call \$1,500,000 bond election. 7-5

Fla., Pensacola—Road—Escambia County defeated \$550,000 bond issue. 7-5

Fla., Palmetto—City, E. H. Mason, Clk., receives bids Aug. 21 for \$20,000 6% white way street lighting and \$15,000 6% water works bonds. 4-5

Fla., Sarasota—Refunding—City Council plans \$160,000 bond issue.

Fla., Starke—School—Bradford County School Dist. No. 6 voted \$20,000 5 1/2% bonds; receives bids Sept. 15. H. B. Wiggins. 8-2

Fla., Tayares—School—Lake County, Bd. of Public Instruction, L. N. Lowry, Chmn., receives bids Sept. 3 for \$52,000 \$1000 6% Special Tax School Dist. No. 21 bonds, and \$6000 \$500 6% Special Tax Dist. No. 24 bonds.

Fla., Titusville—Brevard County, Board of Public Instruction, L. R. H. Ghaffill, Chmn., receives bids Sept. 4 for \$60,000 tax anticipation notes.

Fla., Wauchula—School—Special Tax School Dist. No. 5, J. B. Rooney, Sec., Bd. of Public Instruction, receives bids Aug. 21 for \$18,000 6% bonds.

Fla., West Palm Beach—Palm Beach County Court approved issuing \$170,000 5 1/2% Lake Worth Inlet Dist. refunding bonds.

Ga., Cordele—Hydro-Electric Power Plant—Crisp County Commsr. receive bids Sept. 12 for \$600,000 5% bonds.

Ga., Kirkland—Kirkland Consolidated School Dist. voted \$15,000 bonds.

Ga., Summerville—Road—City voted \$20,000 bonds.

Ky., Maysville—Water—City will issue \$10,000 filtration plant and water extension bonds.

La., Gretna—Jefferson Parish Police Jury, Wm. Henning, Sec., receives bids Aug. 24 for \$150,000 Excess Revenue bonds.

La., Opelousas—Road—St. Landry Parish Police Jury, Sixth Sub-Road Dist., votes Sept. 25 on \$200,000 6% bonds.

Miss., Collins—Road—Covington County Bd. of Supvrs. may issue \$60,000 bonds.

Miss., Orange Grove—Orange Grove Separate School Dist. voted \$15,000 bonds. 7-26

Miss., Lexington—Road—Holmes County Bd. Supvrs. Beat 4, voted \$50,000 bond issue.

Miss., McComb—City—City, B. E. Butler, City Clk., plans issuing \$20,000 water and sewer extension bonds.

Miss., Pascagoula—Park—City plans \$50,000 bond issue.

Miss., Sandersville—Sandersville School Dist., Jones County, voted \$60,000 bonds. 7-12

Mo., Brookfield—City voted bonds to improve streets.

Mo., Fulton—Paving—City defeated \$39,000 bond issue; will call another election.

Mo., Kansas City—City voted \$1,000,000 airport bonds; defeated \$5,500,000 traffic ways, and \$3,500,000 water bonds. 7-19

Mo., Pleasant Hill—Trafficways—City voted \$25,000 bonds.

Mo., Pleasant Hill—City voted \$25,000 improvement bonds.

Mo., Sedalia—Road—Pettis County, Thornleigh Special Road Dist. plans voting \$5000 bonds.

Mo., St. Louis—Airport—City voted \$2,000,000 bonds.

N. C., Marshall—Roads—Madison County, J. Will Roberts, Clk., receives bids Aug. 22 for \$100,000 5% semi-annual road notes.

Okla., Muskogee—Road—Muskogee County, W. H. Pritchell, County Clk., voted \$1,500,000 bonds.

Okla., Okemah—Okemah School Dist. votes soon on \$40,000 bonds.

S. C., Denmark—Street—City votes Aug. 14 on \$45,000 bonds.

S. C., Hickory Grove—School—Town voted \$21,000 bonds.

Tenn., Chattanooga—Municipal Improvement—City, James A. Cash, Commr., considering \$500,000 bond issue: \$100,000, garbage disposal plant; \$150,000, market; \$250,000, aviation field and park.

Tenn., Cookeville—Hydro-Electric Plant—Putnam County—voted \$100,000 bonds. 7-19

Tenn., Henderson—Road—Chester County Court, R. B. Woos, Clk., receives bids Aug. 31 for \$50,000 4 1/2% bonds.

Tenn., Kingsport—Water Works—City, F. D. Cloud, Mgr., receives bids Aug. 21 for \$400,000 5% bonds.

Tenn., Knoxville—Paving—City Council voted to sell \$612,000 bonds. Otto Roehl, Mgr.

Tenn., Ripley—Paving—City, T. H. Green, Mayor, receives bids Aug. 21 for \$75,000 6% bonds.

Tex., Ballinger—Road—Runnels County votes Sept. 1 on \$525,000 bonds.

Tex., Brownsville—Drainage—Le Feria Irrigation Dist., Cameron County, plans voting soon on \$350,000 bonds for additional equipment, drainage and concreting canals of irrigation system.

Tex., Gainesville—Road—Cooke County votes Sept. 11 on \$2,000,000 bonds. 8-2

Tex., Iowa Park—Refunding—City votes Sept. 4 on \$32,000 bonds.

Tex., Nome—School—City voted \$12,000 bonds.

Tex., Rio Grande—Irrigation—Starr County Water Control and Water Improvement Dist. 1, voted \$1,500,000 bonds.

Tex., Seymour—Road—Baylor County, N. G. Mitchell, Judge, voted \$275,000 bonds. 7-5

Tex., Stinnett—Water—City votes Sept. 8 on \$37,000 bonds.

Tex., Shiner—Road—Lavaca County, Road Dist. No. 4, voted \$200,000 bonds.

Va., Clifton Forge—School—City, C. P. Nair, Chmn., Finance Committee, rejected bids for \$175,000 4 1/2% bonds.

Va., Princess Anne—Princess Anne County, Lynnhaven Dist. voted \$100,000 bonds for Ocean High School.

W. Va., Clarksburg—Courthouse—Harrison County defeated \$750,000 bond issue. 7-28

W. Va., New Martinsville—Generating Plant—City, S. R. Cox, Clk., voted \$124,000 bonds.

Bond Issues Sold

Ark., Bentonville—Benton County National Bank, Bentonville, purchased \$10,000 5% Paving Dist. 6 bonds, at par.

Ark., Harrison—Paving—A. T. Hudspeth, Harrison, purchased Paving Dist. 4 bonds.

Ark., Prescott—City sold \$66,000 5 1/2% Street Improvement Dist. 5 bonds to Southern Trust Co., Little Rock, 102.91.

Ark., Magnolia—Street—City sold bonds to Simmons National Bank, Pine Bluff: \$55,000, Dist. 1, 101.26; \$40,000, Dist. 2, 102.56; \$30,000, Dist. 3, 102.63.

N. C., Charlotte—Mecklenburg County Commsr. sold \$1,200,000 5 1/2% notes to In-

dependence Trust Co.; issued to anticipate courthouse and jail bonds fully authorized.

8-2

Okla., Cushing—American First Trust Co., Okahoma City, purchased \$30,000 4 1/4% \$1000 denom. Cushing School Dist. bonds at par.

7-26

Okla., Mangum—City sold \$120,000 bonds: \$25,000, airport; \$10,000, fire truck to City of Mangum; \$50,000, gymnasium, library and auditorium to R. J. Richards & Co., Oklahoma City; \$35,000, water softener to Calvert & Canfield, Oklahoma City.

7-19

Okla., Weatherford—Sewer—City, reported, sold \$35,000 bonds to Liberty Natl. Bank, Weatherford.

8-9

S. C., Whitmire—School—Newberry County, School Dist. No. 52, sold \$80,000 5% bonds to Stranahan, Harris & Oatis, Inc., Toledo, at premium of \$136.

Tenn., Nashville—State Funding Bd. sold \$1,500,000 5% short term notes for Smoky Mountain park purposes to American National Co., Nashville, premium \$767.50.

8-9

Tenn., Sevierville—Road—Sevier County Court sold \$233,000 5% bonds to Caldwell & Co., Nashville, \$2000 and accrued interest.

8-2

W. Va., Clarksville—Bridge—City, D. H. Hamrick, Clk., sold \$60,000 4 1/2% Point Comfort bridge bonds to Lowndes Saving and Trust Co. for par and accrued interest.

7-26

W. Va., Huntington—Road—Cabell County, Guyandotte Dist., sold \$100,000 5% bonds to Harris Forbes & Co., New York for \$105,053.

W. Va., Morgantown—Street, Sewer—City sold \$275,000 5% street and sewer bonds to Bankers Trust Co., New York for \$286,850.58.

Building and Loan Associations

Tex., Corpus Christi—South Texas Building & Loan Assn., capital \$1,000,000, formed; H. F. Dunton, Pres. and Gen. Mgr., 418 Schatz St.; L. H. Gross, V.-P.; Cornelius Clarke, Sec.; Treas.

Tex., Fort Worth—Metropolitan Savings and Loan Assn., temporary offices Burnett Bldg., paid in capital \$50,000, chartered; Durward McDonald, Pres. and Gen. Counsel; Charles Frandeson, Sec.

New Financial Corporations

Ky., Lexington—Guaranty Investment Co., incorporated; J. K. Baldwin, Clarice Borders.

Md., Baltimore—Southern Securities Corp., Maryland Trust Bldg., capital \$100,000, incorporated; J. Vernon Campbell, James R. Edmunds, Jr., McKee Barclay.

Md., Baltimore—Interstate Finance Corp., 411 Citizens Nat'l Bank Bldg., incorporated; George Sommer.

Md., Baltimore—Investment Service Corp., Vickers Bldg., incorporated; Howard Tebbs.

N. C., Durham—Durham Finance and Mortgage Co., capital \$100,000, directors, J. N. Lasater, S. T. Scott, Roxboro St.; J. U. Patton, Jr.

Tenn., Denton—Citizens National Bank and National Bank of Denison consolidated; to be known as Citizens National Bank of Denison; capital \$150,000.

Tex., Temple—Temple Securities Co., capital \$65,000; Thomas C. Hall; J. K. Campbell.

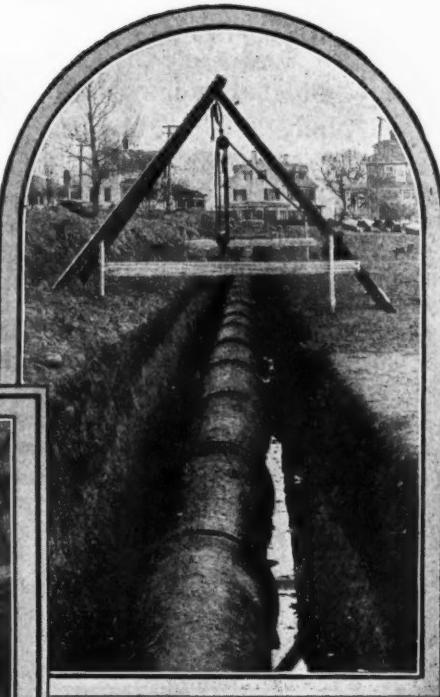
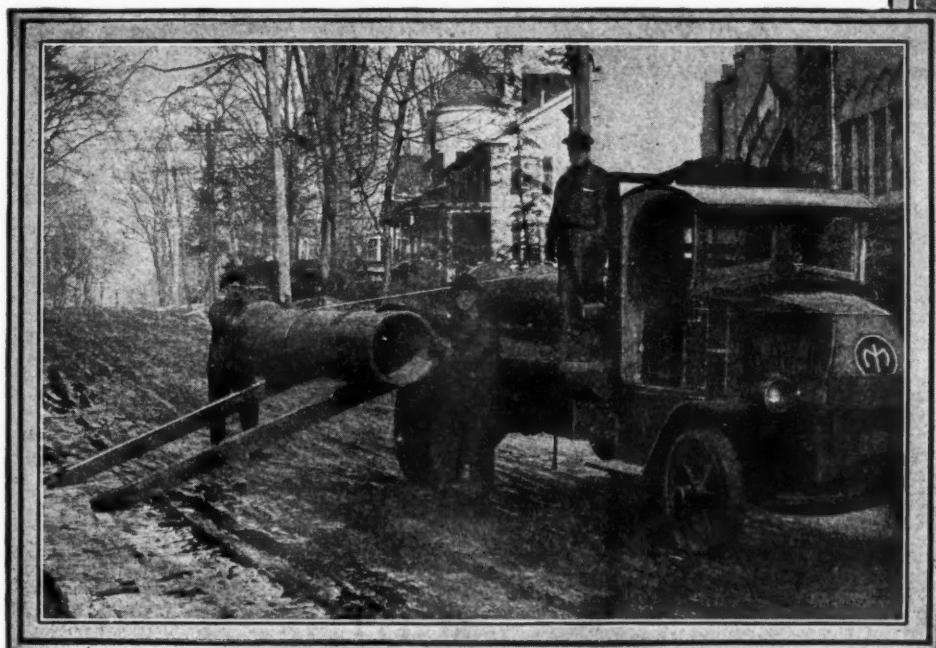
Morris Plan Bank of Virginia, Thos. C. Boushall, Pres., Eighth and Main St., Richmond, Va., plans increasing capital, \$400,000 to \$500,000.

Hamilton Natl. Bank, and **Hamilton Trust and Savings Bank**, both Chattanooga, Tenn., consolidated as **Hamilton Natl. Bank**, and increased capital to \$2,000,000; T. R. Preston, Pres.; plans organizing **Securities Co.** with \$500,000 capital.

Appoints Southern Branch Manager

The Asphalt Association, with headquarters at 435 Whitney Central Bank Building, New Orleans, has appointed as Southern Branch Manager J. M. Page to succeed Mr. W. H. Rhodes, resigned. The Southern Branch includes the states of Texas, Arkansas, Oklahoma, Louisiana, Mississippi and Tennessee.

Reducing FIRST costs as well as *last* costs with CAST IRON PIPE



{above)
An inexpensive crane for
placing pipe in position

{at the left)
Unloading 24" cast iron
pipe using skids



Much helpful data for the engineer and contractor is contained in the U. S. Cast Iron Pipe Hand book. May we send your copy now?

FIRST cost is usually the last cost with cast iron pipe... And proper handling methods will not only insure a lasting job, but also materially reduce the first cost of installation.

The illustration above shows the simple equipment necessary for handling efficiently medium-sized cast iron pipe. The use of the inexpensive crane illustrated speeds up the work, reduces labor cost and helps to make a better finished job.

Practical experience indicates that the use of labor-saving devices may save as much as 40% of the cost of laying mains with hand labor alone. Skillful handling and good equipment on the job always pay.

United States Cast Iron Pipe and Foundry Company

General Offices:

Burlington, New Jersey

Philadelphia: 1421 Chestnut St.
Chicago: 122 So. Michigan Blvd.
Birmingham: 1st Ave. & 20th St.
Buffalo: 957 East Ferry Street
Cleveland: 1150 East 26th Street
New York: 71 Broadway

San Francisco: 3rd & Market Sts.
Pittsburgh: 6th & Smithfield Sts.
Dallas: Akard & Commerce Sts.
Kansas City: 13th & Locust Sts.
Minneapolis: 6th Street &
Hennepin Avenue

August 16, 1928

\$2,000,000 VOTED FOR ST. LOUIS AIRPORT.

Plans Completed and Work to Begin Promptly— Many New Features Incorporated.

St. Louis, Mo.—By more than five to one St. Louis voters on August 7 passed a \$2,000,000 bond issue to provide latest improvements for the local flying field.

Plans for the new St. Louis airport, which will occupy the site of the present Lambert-St. Louis flying field, have been completed by B. Russell Shaw, airport engineer, and were endorsed Friday by Colonel Lindbergh. Mayor Miller assured the famous flyer the city would begin building the airport as soon as possible.

Concrete runways to afford easy take-offs for the largest planes in operation, a central terminal building for passengers, mail and express, modern lighting equipment, a privately operated hotel adjoining the field, restaurant and improved approaches to the field are among the features to be installed.

"The plans," Shaw says, "are the last word in airport construction and are designed to meet the needs of air commerce with its large passenger and express air-lines for many years to come."

To provide safe take-offs and landings, Shaw has designed 8 point hard surfaced runways 4500 feet long and 200 feet wide.

"These runways," he explains, "will be of smooth, hard material, probably concrete, and will be built to permit planes to take off into the wind under all conditions. Connecting the ends of all runways will be a concrete taxi strip so that planes taking off and landing may reach the end of the runways by running over a hard surface, and thereby prevent

marring or cutting up of the field even with the heaviest craft and under the softest field conditions.

"Incorporated in the terminal building will be the latest ideas of a midway tunnel, through which planes may pass to take on and discharge passengers. The span of the midway, according to present plans, will be 200 feet wide, which will accommodate the largest multi-motored craft."

Complete Important Bank Merger at New Orleans.

New Orleans, La.—Purchase in the early part of last month by the Canal Bank and Trust Company of all the assets of the Marine Bank gives New Orleans one of the largest banking institution in the South. Effective July 3, the deposits of the combined institution were \$99,245,400, with total resources of \$127,705,596. On July 27, the capital of the Canal Bank was increased to \$6,000,000, with surplus of \$3,000,000 and undivided profits of \$1,170,000.

J. P. Butler, president, and Sidney W. Souers, executive vice-president, of the Canal Bank will continue in their respective positions with the enlarged institution; Messrs. L. M. Pool, J. A. Bandi and Wm. P. O'Neal, formerly with the Marine, will go to the new institution in the capacity of vice-presidents.

\$30,000,000 Notes Offered by Utilities Company.

The Middle West Utilities Company, Chicago, which owns or controls through stock ownership public utilities companies operating in 30 states, including a number of Southern States, is offering an issue of \$30,000,000 5½ per cent serial gold notes, which will be a direct obligation of the company and will be its only funded debt.

QUALITY is a factor of first importance and the term embraces every detail that contributes to the appearance, advertising value and utility of the finished product.

The highest standard in design, layout and execution feature the work of this Company. In lithography, printing, steel die stamping, embossing and binding, there is but one thought—*how well it can be made.*

AMERICAN BANK STATIONERY CO.
Consolidating
GIDDINGS & ROGERS CO. THE OSCAR T. SMITH CO.
CURTAIN, AIKEN and HARGEST STS.
BALTIMORE, MD.

**SOUTHERN
TEXTILE SECURITIES**

YOUNG & SELDEN COMPANY
MANUFACTURING
Bank and Commercial Stationers
BALTIMORE, MD.

THE OSCAR T. SMITH & SON CO.

Manufacturing

BANK AND COMMERCIAL STA

407-9-11 E. Saratoga Street

BALTIMORE, MD.

CHARACTER **QUALITY**
— SERVICE —

YOUR BUSINESS SOLICITED

Particular attention given to financing
SOUTHERN PROPERTIES



Special Deposits
Real Estate Loans
Trust Facilities
High Grade Bonds

**THE CENTURY TRUST COMPANY
of Baltimore**

Capital \$1,000,000

Surplus \$1,700,000

WE extend the facilities of our organization to those desiring information or reports on companies with which we are identified.

Electric Bond and Share Company*(Incorporated in 1905)*

Paid-up Capital and Surplus, \$115,000,000

Two Rector Street New York

The South's Business

Our experience and success warrant our wanting to identify this bank further with the business and progress of the South.

Inquiries about our service will be treated as coming from friends.

BALTIMORE COMMERCIAL BANK

GWYNN CROWTHER, President

26 South Street, Baltimore, Md.

Capital and Surplus \$1,350,000.00

Member Federal Reserve System

HARVEY FISK & SONS

120 Broadway

NEW YORK

MEMBERS

New York Stock Exchange

LONDON OFFICE
9-13 King William St., E.C. 4

BRANCH OFFICE
251 West 57th Street

We Buy Bonds

City, County, School and Road from Municipalities and Contractors

WRITE

THE PROVIDENT SAVINGS BANK & TRUST CO.
CINCINNATI OHIO

Municipalities
Corporations
Railroads

Financed

MARX & CO. BIRMINGHAM ALABAMA

THE ROBINSON-HUMPHREY COMPANY
MUNICIPAL AND CORPORATION BONDS*Established 1894*

ATLANTA, GA.

We Underwrite MUNICIPAL BONDS in States of
GEORGIA and SOUTH CAROLINA

We Buy and Sell
MUNICIPAL BONDS AND NOTES
CORPORATE PREFERRED
STOCK and BOND ISSUES

See Us on Southern Financing

R. S. DICKSON & CO., Gastonia, N. C.
New York Greenville, S. C. Goldsboro, N. C.

FLORIDA MUNICIPAL BONDS

We specialize in the purchase and sale of all Florida Municipal Bond Issues. Correspondence invited.

MUNICIPAL INVESTMENT CORPORATION

THE HARVEY BUILDING
WEST PALM BEACH, FLORIDA

MUNICIPAL NOTES
COMMERCIAL PAPER
COLLATERAL LOANS

W. O. GAY
H. D. MONTGOMERY
G. C. DEMOREST

W. O. GAY & CO.*(Established 1894)*

27 William St.

NEW YORK

PHILADELPHIA

BOSTON



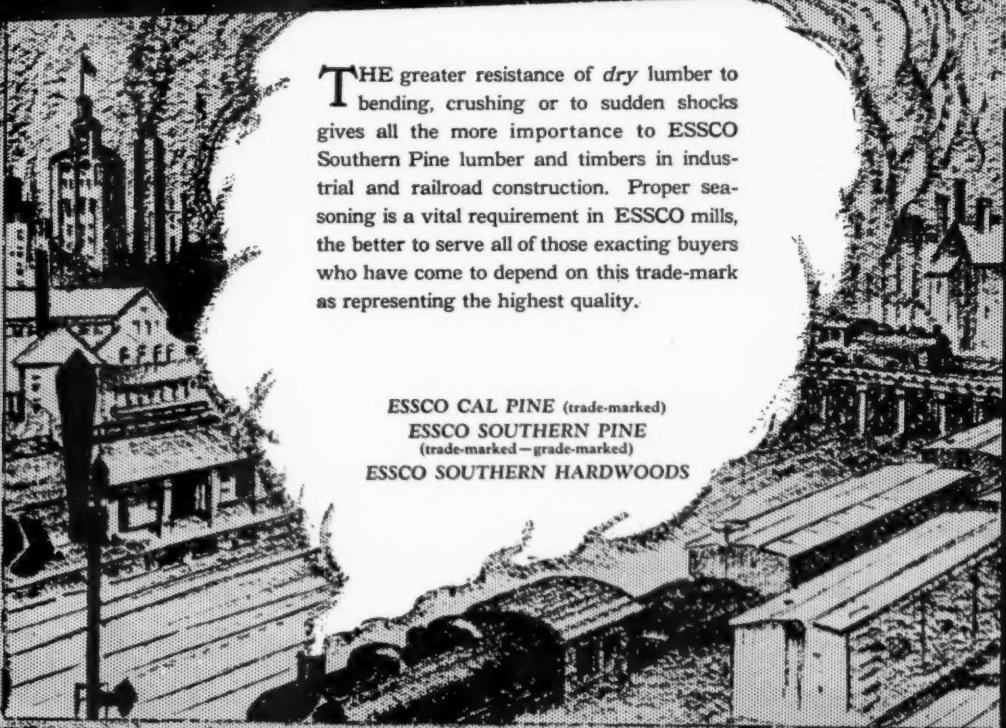
Insuring Insurance

An American Appraisal will establish for you the insurable value of your property, will classify it in accordance with your insurance requirements, and will equip you with complete data with which to prepare an immediate and accurate proof of loss in the event of fire.

THE AMERICAN APPRAISAL COMPANY

Atlanta	Cincinnati	Kansas City	New York	St. Louis
Baltimore	Cleveland	Los Angeles	Philadelphia	Syracuse
Boston	Dallas	Milwaukee	Pittsburgh	Washington
Buffalo	Detroit	Minneapolis	San Francisco	Berlin, Germany
Chicago	Indianapolis	New Orleans	Seattle	

A N A T I O N A L O R G A N I Z A T I O N



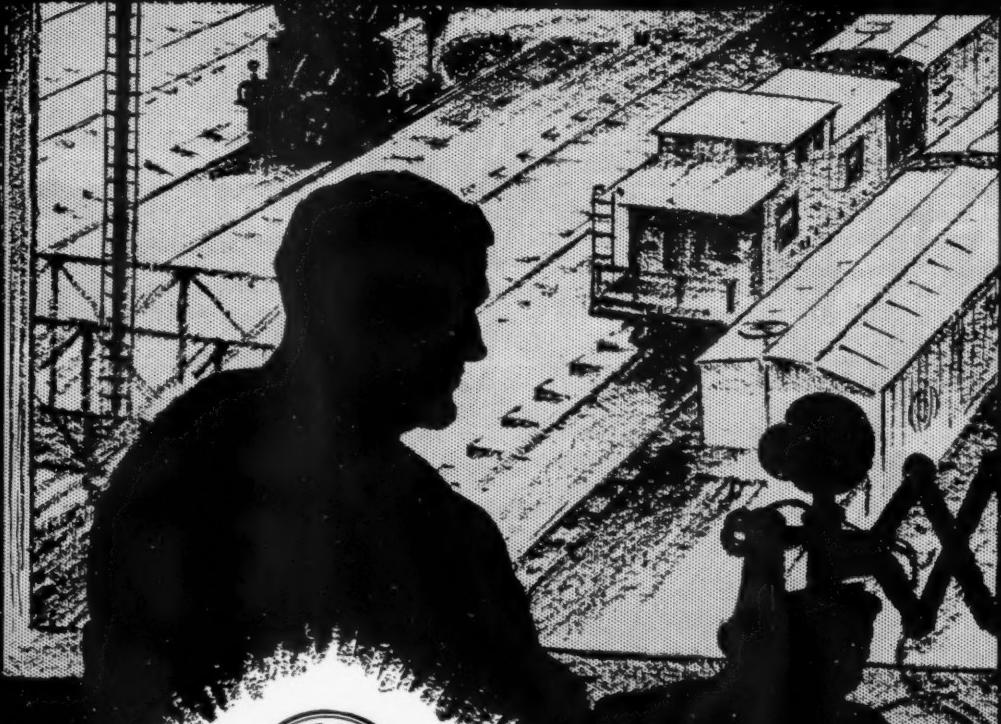
THE greater resistance of *dry* lumber to bending, crushing or to sudden shocks gives all the more importance to ESSCO Southern Pine lumber and timbers in industrial and railroad construction. Proper seasoning is a vital requirement in ESSCO mills, the better to serve all of those exacting buyers who have come to depend on this trade-mark as representing the highest quality.

ESSCO CAL PINE (trade-marked)

ESSCO SOUTHERN PINE

(trade-marked—grade-marked)

ESSCO SOUTHERN HARDWOODS



EXCHANGE SAWMILLS SALES CO.
KANSAS CITY, MO.

Plans Soon Ready for \$3,250,000 Courthouse.

Birmingham, Ala.—Plans are expected to be ready by November 1 and sent to contractors on that date for bids on the proposed Jefferson County courthouse here, to be erected at an estimated cost of \$3,000,000 to \$3,250,000. About six weeks will be allowed for estimates, after which the contract will be awarded and construction begun. The building will be approximately 185 by 300 feet, 8 or 9 stories, to occupy a site east of Capitol Park. It will be of modern, fireproof construction and embody the latest ideas in design and arrangement. Holabird & Root, Chicago, are the architects. The enterprise is being handled by a courthouse commission, of which Oscar Wells, president of the First National Bank of Birmingham, is president; W. S. Henley, president of the Birmingham Trust and Savings Company, vice-president; M. W. Bush, president of Alabama By-Products Corporations; E. H. Cabaniss, an attorney of Birmingham, and Sam P. King, president of the Bank of Ensley.

\$250,000 University Building Let to Contract.

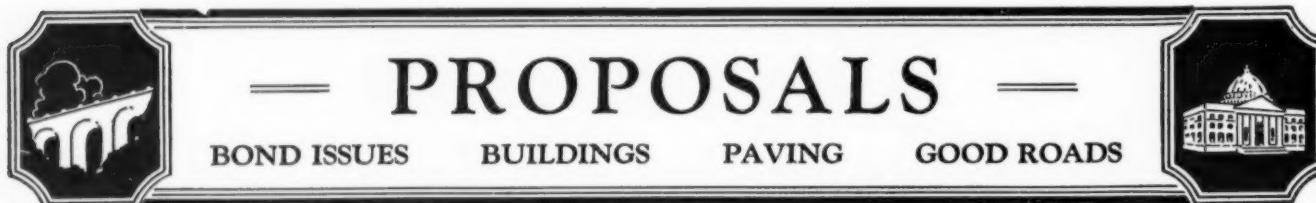
University, Ala.—The University of Alabama has awarded general contract to the Skinner-Maxwell Building Company, Tuscaloosa, Ala., for the erection of a \$250,000 fireproof education building, 200 by 60 feet, 3 stories and basement, of Georgian architecture. Warren, Knight & Davis, Birmingham, are the architects.

Southern Products to Be Shown North.

The Atlantic Coast Line Railroad has arranged to put on exhibition at several of the country fairs in New York and New England a comprehensive display of agricultural products of the states in the South through which its lines run. In addition to the usual standard crops such as cotton, corn and tobacco the exhibit includes all the many fruits and vegetables produced in its territory, small grains and forage crops, sweet potatoes, pecans, peanuts, sugar cane, flowering bulbs, cottonseed oil products, tung oil, peanut products, honey, preserved fruits and jellies. There will also be samples of clays and other minerals and of the many different woods native of the Southeast.

The display will be shown in New England and New York during the late summer and early fall. Among the fairs where it will be seen are the Eastern States Exposition at Springfield, Mass.; the Connecticut State Fair at Hartford, Conn.; the New England Fair at Worcester, Mass., and the Twin State Fair of Vermont and New Hampshire at White River Junction, Vermont.

Sealed bids will be opened September 3 at the United States Engineer Office, New Orleans, La., for enlarging Little Caillou Bayou, Terrebonne Parish, Louisiana, the work to cover about 20 miles and provide for a depth of 5 feet below mean low Gulf level, with a bottom width of 40 feet.



Bids close August 27, 1928.

U. S. ENGINEER OFFICE, Galveston, Tex. Sealed proposals will be received here until 12 M. August 27, 1928, and then opened, for dredging Channel from Galveston Harbor to Texas City, Texas. Further information on application.

Bids close September 13, 1928.

U. S. Engineer Office, Baltimore, Md. Sealed proposals will be received here until 1 o'clock P. M., Eastern Standard Time, September 13, 1928, and then opened, for dredging in Crisfield Harbor and Cambridge Harbor, Md. Further information on application.

Bids close September 4, 1928.

U. S. Engineer Office, Wilmington, N. C. August 4, 1928. Sealed bids will be received at this office until 12 o'clock noon September 4, 1928, and then publicly opened, for furnishing all labor and materials and performing all work for dredging in Shallow River, N. C. Further information on application.

Bids close September 6, 1928.

Office of Constructing Quartermaster, Fort Bragg, N. C. Sealed proposals in triplicate will be received until 10 A. M. September 6, 1928, and then opened, for construction and completion of one Field Artillery Battalion Barracks and one Field Artillery Regimental Barracks, including the utilities thereto, at Fort Bragg, N. C. \$25 deposit required for drawings, etc. Further information on request.

Bids close September 5, 1928.

TREASURY DEPARTMENT. Office of the Supervising Architect, Washington, D. C., August 8, 1928.—Sealed bids will be opened in this office at 3 P. M., September 5, 1928, for additional wards, etc., in the U. S. Marine Hospital Building, Pittsburgh, Pa. Drawings and specifications may be obtained from the surgeon in charge of the building or at this office, in the discretion of the Supervising Architect. **JAS. A. WETMORE, Acting Supervising Architect.**

RATE: 35 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE: 4 P. M. Monday.

DAY LETTER: When too late to send copy by mail to reach us by 4 P. M. Monday, forward by day letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD: Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—35 cents per line per insertion.

Bids close September 5, 1928.

Sealed Bids, indorsed "Bids for Buildings, Specification No. 5601," will be received at the Bureau of Yards and Docks, Navy Department, Washington, D. C., until 11 o'clock A. M. September 5, 1928, and then and there publicly opened, for seven apartment houses, a disciplinary barracks, a commissary building, a storehouse, a motor-transport building, a power house and a pump house at the Marine Barracks, Quantico, Va. Work includes concrete piles; concrete; brick and hollow tile; granite limestone and artificial stone; steel and iron; steel sash; metal and metal-covered doors; slate and built-up roofing; sheet metal; metal studding and lathing; composition treads; terrazzo, marble and tile; wood framing, doors, sash and finish; steel water tank; bituminous macadam roads; railroad tracks; elevators; gasoline tanks and pumps; air compressor; inside heating and outside steam distribution and plumbing; storm water drainage and electrical systems. Specification No. 5601 and accompanying drawings may be obtained on application to the Bureau or to the Commanding General, Marine Barracks, Quantico, Va. Deposit of a check or postal money order for \$75, payable to the Chief of the Bureau of Yards and Docks, is required as security for the safe return of the drawings and specification. **L. E. Gregory, Chief of Bureau, June 29, 1928.**

Bids close August 21, 1928.

TREASURY DEPARTMENT, office of the Supervising Architect, Washington, D. C., August 7, 1928.—**SEALED PROPOSALS** will be opened in this office at 3 P. M. August 21, 1928, for removing old boiler and furnishing all labor and material for the installation of a new heating boiler, etc., in the U. S. Postoffice, etc., Wilmington, N. C. Drawings and specifications may be obtained from the custodian, U. S. P. O., etc., Wilmington, N. C., or at this office, in the discretion of the Supervising Architect. **JAS. A. WETMORE, Acting Supervising Architect.**

Bids close September 5, 1928.

Sealed Bids, indorsed "Bids for Power Plant Equipment, Specification No. 5602," will be received at the Bureau of Yards and Docks, Navy Department, Washington, D. C., until 11 o'clock A. M. September 5, 1928, and then and there publicly opened, for steam generating plant, using powdered coal for fuel and consisting of watertube boiler, air-cooled boiler settings, pulverizers, burners, smoke flue, turbine and motor-driven forced-draft fans, metering feed-water heater, storage tank, boiler feed, vacuum and condensate pumps, drip traps, exhaust silencer, electric pyrometers, meters and other accessories and complete piping systems; equipment for conveying and storing coal and ashes; refrigerating and ice-making plant, including construction of ice storage and cold rooms and equipment for handling food; heating system for the building; switchboard, transformers and power and lighting circuits, and the installation of a diesel engine generator set and other apparatus furnished by the Government at the Marine Barracks, Quantico, Va. Specification No. 5602 and accompanying drawings may be obtained on application to the Bureau or to the Commanding General, Marine Barracks, Quantico, Va. Deposit of a check or postal money order for \$25, payable to the Chief of the Bureau of Yards and Docks, is required as security for the safe return of the drawings and specification. **L. E. Gregory, Chief of Bureau, July 14, 1928.**

Bids close September 14, 1928.

TREASURY DEPARTMENT, office of the Supervising Architect, Washington, D. C., August 10, 1928.—SEALED BIDS will be opened in this office at 3 P. M. September 14, 1928, for extension and remodeling of the U. S. Postoffice at Corsicana, Tex. Drawings and specifications, not exceeding six sets, may be obtained at this office, in the discretion of the Supervising Architect, by any satisfactory general contractor, and provided a deposit is made of \$15 for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. JAS. A. WETMORE, Acting Supervising Architect.

Bids close August 28, 1928.

Highway Construction

DEPARTMENT OF PUBLIC WORKS
STATE OF MARYLAND
STATE ROADS COMMISSION.
NOTICE TO CONTRACTORS.

Baltimore, Md.

SEALED PROPOSALS for building two sections of State Highway, as follows: Montgomery County, Cont. M-17-A. One section of State Highway through Rockville for a distance of 0.13 miles. (Concrete Shoulders.) Cecil County, Cont. Ce-67. One section of State Highway from Port Deposit to the Conowingo Dam for a distance of 4.74 miles. (Grading and Drainage.) will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 28th day of August, 1928, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 10th day of August, 1928.

JOHN N. MACKALL, Chairman.
L. H. STEUART, Secretary.

Bids close September 4, 1928.

Road Work and Police Uniforms

Dover, Del.

Sealed proposals will be received by the State Highway Department at its office, Dover, Delaware, until 2 o'clock P. M. September 4, 1928, and at that place and time publicly opened, for contracts involving the following approximate quantities:

CONTRACT O

36 State Highway Police Uniforms

CONTRACT 90

BAY ROAD, 3.77 MILES

13,000 Cu. Yds. Excavation.

500 Cu. Yds. Borrow.

6,580 Cu. Yds. Cement Concrete Pavement.

OR 6,580 Cu. Yds. Cement Concrete Pavement (Slag Aggregate).

19,900 Lin. Ft. Longitudinal Metal Joint.

OR 19,900 Lin. Ft. Longitudinal Joint (Non-metallic).

60 Cu. Yds. Class "A" Concrete.

1,500 Lbs. Reinforcement.

400 Lin. Ft. 15-in. Corrugated Metal Pipe.

250 Lin. Ft. 15-in. R. C. Pipe.

110 Lin. Ft. 18-in. R. C. Pipe.

CONTRACT CS-63A

PAVEMENT, DOUBLE BRIDGES-BRIDGEVILLE, 4.15 MILES

3,350 Cu. Yds. Cement Concrete Pavement (Slag Aggregate).

OR 29,200 Sq. Yds. 4-in. Sand Asphalt Surface Course, laid in one course.

Performance of contract shall commence within ten (10) days after execution of the contract and be completed as specified.

Monthly payments will be made for 90

per cent of the construction completed each month.

Bidders must submit proposals upon forms provided by the Department.

Each proposal must be accompanied by a surety bond, certified check or money to the amount of at least ten (10) per centum of the total amount of the proposal.

The envelope containing the proposal must be marked "Proposal for the construction of State Highway Contract No."

The contract will be awarded or rejected within twenty (20) days from the date of opening proposals.

The right is reserved to reject any or all bids.

Complete sets of plans and specifications may be obtained upon receipt of two dollars (\$2.00) for each contract, which amount will not be refunded.

STATE HIGHWAY DEPARTMENT,
Dover, Delaware.

Bids close August 21, 1928.

Electric Lighting System Timber Jetty

DEPARTMENT OF PUBLIC WORKS
STATE OF MARYLAND
STATE ROADS COMMISSION

NOTICE TO CONTRACTORS

Baltimore, Md.

SEALED PROPOSALS for building miscellaneous projects as follows: Harford County, Cont. H-50-A—Electric lighting system on highway bridge over Susquehanna River at Havre de Grace.

Worcester County, Cont. Wo-60—Timber Jetty in Atlantic Ocean at foot of Talbot Street in Ocean City.

will be received by the State Roads Commission at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 21st day of August, 1928, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form, which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER OF THE STATE ROADS COMMISSION this 8th day of August, 1928.

JOHN N. MACKALL, Chairman.

L. H. STEUART, Secretary.

Bids close August 20, 1928.

Electric Light Plant and Distribution System

Columbia, N. C.

Separate sealed proposals will be received by the undersigned Mayor and Board of Aldermen of the Town of Columbia, N. C., until 8 P. M. Monday, August 20, 1928, at the Council Chamber, Tyrrell County Courthouse, Columbia, N. C., and at that time and place publicly opened and scheduled, and contracts awarded as soon thereafter as possible as follows:

1. For the construction of an electric light plant building.

2. For Diesel Oil Engine Generating Sets and Switchboard.

3. For A.C. High-Tension Distribution System in the Town of Columbia.

Each proposal must be accompanied by a certified check for (5) five per cent, or bond, of the amount of the bid.

The envelope containing the proposal must be marked showing what the bid is for, as outlined above.

Plans and specifications may be obtained at the office of the Clerk, W. H. McClees, Columbia, N. C., upon deposit of \$25, which amount will be refunded upon return of the plans and specifications when bidding. If returned in good condition without bidding ten days after bids are received \$15 will be refunded.

The right is reserved to reject any or all bids.

W. J. WHITE, Mayor.

W. H. McCLEES, Clerk.

JULIUS S. PEEL, Atty.

Bids close August 28, 1928.

\$35,000 4½% School Bonds

Radford, Virginia.

Sealed bids will be received 1 P. M. August 28 for \$35,000 issue of School Bonds at 4½% interest. Right is reserved to reject any or all bids. Address

R. W. ARTHUR, City Manager.

Bids close August 24, 1928.

Sewers and Appurtenances

Haleyville, Ala.

Sealed bids will be received by the Town of Haleyville, Alabama, at the office of the Town Clerk until 7 P. M. August 24, 1928, and at that time publicly opened, for certain sanitary sewers and appurtenances thereto, the same being on streets and other locations designated in Improvement Ordinance No. 37. The principal items of work are approximately as follows:

100 Lin. Ft. 6-inch Sanitary Sewer.

28,125 Lin. Ft. 8-inch Sanitary Sewer.

1,541 Lin. Ft. 10-inch Sanitary Sewer.

89 Manholes.

3 Septic Tanks.

Plans and specifications are on file in the office of the Town Clerk at Haleyville, Ala., and in the office of the Consulting Engineers, Birmingham, Alabama. Specifications and proposal blanks can be secured on deposit of \$5.00 from the undersigned or from the Consulting Engineers. Copy of the plans will be mailed by the Consulting Engineers on receipt of payment (not deposit) of \$5.00.

The right to reject any or all bids is reserved.

Cash or certified check or proposal bond for Two Thousand Dollars, made payable to the Town of Haleyville, Alabama, must accompany each bid as evidence of good faith and as a guarantee that if awarded contract the bidder will execute the contract and give bond as required.

DR. M. L. STEPHENS, Mayor.

ROBERT L. TOTEN, INC., Consulting Engineers, Birmingham, Ala.

Bids close September 4, 1928.

Water-Works Improvements

Mobile, Ala.

Bids will be received by the Board of Commissioners of the City of Mobile, Ala., until noon September 4, 1928, for the installation of the following mains and accessories in connection with proposed improvement of water-works system:

DIVISION ONE

13,800 Lin. Ft. 24-in. Pipe, Class "C."

3 24x28-in. Blow-off Valves.

3 24-in. Bevel Gear Valves, with By-Pacs.

4 24x24 Tapping Valve and Sleeve.

6 Manholes and Covers.

Exterior piping at Pumping Plant.

(See detail.)

DIVISION TWO

50 10-in. Cast-Iron Pipe, Class "C."

3,750 10-in. Cast-Iron Pipe, Class "B."

3,400 8-in. Cast-Iron Pipe, Class "C."

6,700 8-in. Cast-Iron Pipe, Class "B."

18,450 6-in. Cast-Iron Pipe, Class "B."

6 10-in. Gate Valves Hub End.

10 8-in. Gate Valves Hub End.

20 6-in. Gate Valves Hub End.

43 Fire Hydrants.

400 Cu. Ft. Brick Masonry in Piers.

2 Cu. Yds. 1-2-4 Concrete in Foundations.

DIVISION THREE

1 60,000 Gal. Capacity Tank on 75-ft. Tower.

1 100,000 Gal. Capacity Tank on 75-ft. Tower.

1 100,000 Gal. Capacity Tank on 110-ft. Tower.

1 150,000 Gal. Capacity Tank on 75-ft. Tower.

1 150,000 Gal. Capacity Tank on 110-ft. Tower.

Only one tank to be constructed.

Plans and specifications are on file in the office of the City Engineer, Mobile, Ala., where they may be seen and examined, or a copy of plans and blueprints will be sent on receipt of deposit of \$5. This deposit will be returned to bona fide bidders on return of plans and specifications in good condition.

WRIGHT SMITH,
City Engineer.

PROPOSALS

Manufacturers Record

Bids close September 7, 1928.

Water Purification Plant

Dallas, Texas.

Sealed bids will be received in the office of the undersigned until 10 A. M. September 7, 1928, for the building of a 32,000,000 gallon per day Water Purification Plant, in accordance with plans and specifications on file with the City Secretary, the work to be let in two contracts, as follows:

The General Contract to include construction work, such as basins, buildings, etc. Plans and specifications may be obtained from David Morey, Jr., 417 Praetorian Building, Dallas, Texas, on deposit of a certified check of \$75. This check will be returned on return of plans and specifications. A Cashier's Check on any State or National Bank of the City of Dallas in the amount of \$45,000, made payable to the Mayor of the City of Dallas, will be required of bidders on this section.

Contract for filter piping and equipment to cover the furnishing and installation of the filter equipment proper. Plans and specifications may be obtained from David Morey, Jr., 417 Praetorian Building, Dallas, Texas, on deposit of a certified check of \$75. This check will be returned on return of plans and specifications. A Cashier's Check on any State or National Bank of the City of Dallas in the amount of \$10,000, made payable to the Mayor of the City of Dallas, will be required of bidders on this section.

The city reserves the right to reject any or all bids.

Envelopes must be marked "Bids on Purification Plant."

M. G. JAMES, City Secretary,
Dallas, Texas.

Bids close August 17, 1928.

Diesel Engines

Tarboro, N. C.

THE TOWN OF TARBORO INVITES
SEALED BIDS LOOKING TO THE PURCHASE BY THE TOWN OF TWO DIESEL OR OIL ENGINES FOR USE IN THE TOWN'S ELECTRIC LIGHT PLANT.

Public notice is hereby given that the Town of Tarboro will receive sealed bids looking to the purchase by the said town of two Diesel generating engines or units of the following sizes, to wit:

800 to 900 H.P. and 532 to 600 K. W. capacity each.

Bidders are invited by the town and will be received by J. H. Jacocks, Town Clerk, up until 7 P. M. on the 17th day of August, 1928.

Bids must be accompanied by bidder's cer-

tified check in the sum of five per cent of the amount bid as an evidence of good faith.

Proposals will be received on two or four cycle, solid injection or air injection, cold starting engines of manufacturers standard make and rating.

The time necessary for the building of the machines and putting them in successful operation in the municipal power plant of the Town of Tarboro shall be specifically stated in the bidder's proposal, and the successful bidder will be held to this agreed time limit.

Plans and specifications for said engines and parts and accessories thereto may be had by interested parties upon application being made to J. H. Jacocks, Town Clerk, at his office in Tarboro, North Carolina.

Bids will be opened on Friday night, August 17, 1928, at 8 P. M., at a meeting of the Board of Commissioners of Tarboro at the City Hall, Tarboro, North Carolina.

The Town of Tarboro reserves the right to reject any proposals or bids.

This August 4th, 1928.

W. C. HARGROVE, Mayor.
J. H. JACOCKS,
Town Clerk and Secretary.

Bids close September 7, 1928.

Pumping Equipment

Dallas, Texas.

Sealed bids will be received in the office of the undersigned until 10 A. M. September 7, 1928, for furnishing and erecting the following pumping equipment at Bachman's Dam:

Two 15 M.G.D. Turbine-Driven Pumping Units, complete with all auxiliaries.

Three 15 M.G.D. Motor-Driven Pumping Units, complete with motors.

Two 1000 K.W. Turbo Generators, complete with all auxiliaries.

Three 300 H.P. Water Tube Boilers.

This equipment to be furnished and erected in accordance with plans and specifications on file with J. B. Winder, Chief Engineer of the Water Department, copies of which may be obtained on deposit of a Cashier's Check of \$10 per copy. This check will be returned on return of plans and specifications accompanied by bona fide bids.

With each proposal there shall be submitted a Cashier's Check on any State or National Bank of the City of Dallas in the amount of 5 per cent of the total sum bid, made payable to the Mayor of the City of Dallas, said check to be returned in accordance with specifications.

The city reserves the right to reject any or all bids.

Envelopes must be marked "Bids on Pumping Equipment."

M. G. JAMES, City Secretary.

Bids close September 11, 1928.

Deep Well

Jackson, Tenn.

Sealed proposals will be received by the undersigned until 10 o'clock A. M. on Tuesday, September 11, 1928, for the construction of one deep well (approximately 14 inch, 150 feet deep) near the plant of the Jackson Water Works, Jackson, Tennessee; also for the equipping of said well with a centrifugal deep-well pump and electric motor of suitable capacity, together with necessary controls. Specifications and complete information may be obtained from the undersigned. A certified check in the amount of 5% of the cost, based upon the bid submitted, must accompany each bid, same to be held in accordance with notice and specifications. At 10 o'clock on said date all bids will be opened and publicly read.

R. E. FRANKLIN,
Commissioner Public Utilities,
Jackson, Tenn.

E. R. DIKE,
City Engineer.

Bids close August 22, 1928.

School Supplies and Equipment

DEPARTMENT OF EDUCATION
OFFICE OF THE
BOARD OF SCHOOL COMMISSIONERS
MADISON AND LAFAYETTE AVENUES

Baltimore, August 8, 1928.

Sealed Proposals, in duplicate, addressed to the Board of Awards of Baltimore City, will be received at the office of the City Register, City Hall, Baltimore, Md., until 11 o'clock A. M. Wednesday, August 22, 1928, endorsed as follows:

"Proposals for Furnishing Supplies, Tools, Machinery and Equipment for Boys' Vocational School for the Department of Education."

Specifications for the above may be obtained at the office of the Director of Business Management of the School Board, Madison and Lafayette Avenues, Baltimore, Md.

Each bid must be accompanied by a certified check of the bidder for \$50, made payable to the Mayor and City Council of Baltimore, and drawn on a clearing-house bank.

The successful bidder will be required to give bond for the faithful performance of his contract in an amount equal to the contract price, and to comply with the City Charter respecting contracts.

The Board of Awards reserves the right to reject any or all bids.

JOSHUA R. JOLLY,
Acting Secretary Board of
School Commissioners.
Approved August 8, 1928.
HOWARD BRYANT,
Acting President Board of Awards.

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES

FOR LEASE OR SALE

Large deposits of Iron Ore, Oolitic Limestone, Fluor Spar and Zinc, Quartzite, Sandstone, Glass Sands. On Railroad; adjoins gas field; labor of a good class; low price. In Western Kentucky. W. S. LOWERY, Salem Star Route, Marion, Ky.

GRANITE QUARRY

FOR SALE OR LEASE—Granite quarry near Atlanta in the Lithonia-Stone Mountain zone. Address "OWNER," 1521 Peachtree St. N. E., Atlanta, Ga.

COAL LANDS AND MINES

FOR QUICK SALE—2705 acres, Webster County, W. Va., Coal. About 4 miles Railroad Frontage. Ideal Proposition. \$15 per acre. WAINVILLE COAL & COKE CO., John Wesley Dean, Treasurer, Martinsburg, West Virginia.

RATES AND CONDITIONS

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost allow seven words of ordinary length to a line. When the advertisement contains a number of long words proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamp accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisement accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c per line; 300 lines, 26c per line; 500 lines or more, 25c per line.

COAL AND TIMBER LAND

FOR SALE—1221 ACRES COAL and timber land, located on Tennessee Central Railroad within 92 miles of Knoxville, Tenn.; good drift mining proposition; has heavy mining engine, ventilating fan, coal tipple, 30 mining cars, office equipment large commissary, good dwelling house, 8 miners' houses, hotel, Western Union Telegraph station, railroad ticket office. Price \$25 acre; terms, \$5000 cash, balance 7 years. B. H. Sprankle, 426 Union Ave., Knoxville, Tenn.

TIMBER AND TIMBER LAND

FIVE THOUSAND ACRES land bordering on railroad. Good growth young timber. Fine hunting preserve. Price \$8 per acre. BOX 106, GREELEYVILLE, S. C.

800 MILLION FEET virgin pine stumpage, 12 to 48 in. at stump, 30 years to turpentine and cut. Price 25c per thousand or \$200,000 cash; 12 miles to railroad; in Mexico. Full particulars, estimates and reports. W. A. STEPHENS & CO., 301 Com'l Bldg., Shreveport, La.

FARM, FRUIT AND TRUCK LANDS**ARKANSAS**

6500 ACRES hill and valley land, on good road, near State highway; almost enough commercial timber to pay for tract; plenty of water from creeks and springs; fine for stock ranches or colonization. Clay and Bauxite lands; railroad transportation; highways; hydro-electric power and natural gas. Cheap white American labor. H. W. Anderson, Benton, Ark. Write for farm list.

1800 ACRES, within 6 miles of Monticello, County Seat of Drew County, Arkansas, in one of the most prosperous and progressive communities in Arkansas. Half of this acreage is free from stumps and ready for immediate cultivation. The remainder is woodland. There is quite a lot of fine merchantable timber, consisting of oak and hickory. Well served with good highways and all neighborhood conveniences. Close railroad facilities. Soil is very fertile. No waste land. This land is easily worth \$50 per acre. A very attractive price will be made for spot cash. Title perfect. Write D. W. WATSON,

1183 Broad Street, Newark, N. J.

COLORADO

320 ACRES smooth, unimproved tractor land; 40 to 45 bushels acre wheat on adjoining land; one crop wheat or beans will pay purchase price, expense of raising and marketing crop; non-resident offering at less than half value; only \$12.50 per acre. Write for illustrated circular. PERSHING & MARSHALL, Limon, Colo.

CUBA

CUBA, THE TROPICAL PARADISE. Now is the time and this is the place. Wonderful opportunities for the man who knows. Best farm lands near Havana; crops all the year around. M. A. Alvarez, Realtor, P. O. Box 2524, Havana, Cuba.

FLORIDA

40,000 ACRES Hillsborough County, Fla., within 20 miles Tampa, at \$5 acre, all cash. Clear title; taxes paid to date. No. 6948, care of Manufacturers Record, Baltimore.

FLORIDA—Richest farms, gardens, dairy and ranches. Soil 2 to 15 ft. Farm the year 'round. Write for free list.

BEACH & SON, Moore Haven, Fla.

SUMMERTIME IS BARGAIN TIME

Yes, the Slump is over, but no advance in prices. Send today for free Special Summer Bargain list of Groves; also Farms, Homes and Investments. We have better values today, we believe, than we have had in our more than 15 years in business. Tampa-West Coast Realty Co. (Inc.), Opp. Postoffice "Since Before the War," Tampa, Florida.

MISSISSIPPI

FOR SALE—12 farms, with improvements (aggregating 1600 acres), suitable for any Southern grown crops; dairy, too; terms to suit purchasers; Northeast Mississipi. T. M. HARRIS, Houlka, Miss.

NORTH CAROLINA

FOR SALE—Ten farms, with improvements (aggregating 2800 acres), suitable for tobacco, cotton, peanuts, corn and other crops. Terms to suit purchasers; 350 acres suitable for nursery or stock farm. La Fayette Life Insurance Co., Lumberton, N. C.

If interested

FOR HOME OR FOR INVESTMENT In the great and rapidly developing STATE OF NORTH CAROLINA, especially in its leading city, Charlotte, or in a Southern Cotton Mill or Southern Mill Stocks, write to

F. C. ABBOTT & CO., Realtors and Investment Bankers Nearly thirty years in Charlotte.

BUSINESS AND INVESTMENT PROPERTIES

SIX-STORY solid stone business block, eight stories ground floor and five floors offices in the heart of Kansas City. Price \$250,000; encumbrance \$70,000. Will trade for farm lands, timber lands or income property in the South. Write for particulars. Submit what you have.

PHOENIX REALTY CO., Columbia, Tenn.

SOUTH CAROLINA

TO THE BUSINESS MAN OF FORESIGHT Invest in Sumter property; the most progressive industrial and agricultural section of the State of South Carolina. Many new plants now under construction. Recently selected as the best location by one of the largest hardwood manufacturers in the South. Write for information in detail regarding the property described below. Lot on Main Street, the Lafayette Highway (the shortest route between Raleigh, N. C., and Savannah, Ga.), in the heart of the best business section. Frontage 94.8 feet, depth 226 feet; alley in rear to street parallel to Main Street. Per foot \$500.

JAMES CUTTINO, Sumter, S. C.

BUSINESS OPPORTUNITIES

GOING MANUFACTURING CORPORATION wants two men to join; each must invest \$3000; take full charge of their part of business; each will be paid good salary. Their investment will prove highly profitable; close investigation is invited.

Box 311-E, Orlando Ave., Orlando, Fla.

EXCHANGE -- Ten-Unit Semi-Fireproof Apartment House, Central Florida, built by day labor under owner's supervision, 1926. Completely furnished; latest modern appliances, including Frigidaire. Value \$50,000; unencumbered. Need paving and grading equipment. Address No. 6951, care Manufacturers Record, Baltimore, Md.

EXPERIENCED, intelligent American would develop high grade milk business with general farm proposition in South. Can grow and market fruit and vegetables. Terms, salary and share of net profits. Or would consider colonization or agricultural promotion work for railroad or other organization interested in developing the South. C. DORRANCE ALLEN, West Bathurst, N. B., Canada.

FOR SALE—Going concern having offices in New York City and Boston, Mass., manufacturing a very high-grade line of Children's Playground Equipment, Toys, etc., with established trade in the largest department stores in the country. A money maker from the start; only reason for selling the broken health of owner. An unusual opportunity for a young man with ambition and business ability. The present owner will retain a silent interest with the right man if desired. Will stand fullest investigation. Address Box No. 625, Orlando, Florida.

WANTED—\$10,000 for a demonstrating plant in Washington, D. C., to demonstrate, advertise and exploit improved, patented invention, extensively used by the Government before improvement. Offer one-tenth of incorporated company as bonus and will assign product or sale receipts from demonstrating plant that will exceed \$20,000 exclusive of machine sales the first year, with contingent control to assure repayment. If investment is preferred, instead of repayment, 30% of company stock will be issued. For particulars address No. 6946, care of Manufacturers Record, Baltimore, Md.

PUBLIC UTILITIES WANTED

HAVE CLIENTS with money to invest in public utilities, electro-power plants, waterworks systems and ice factories. Write George B. Baskerville, Cons. Engineer, 1616 Tenth Avenue, South, Birmingham, Ala.

INDUSTRIAL CHEMIST

INDUSTRIAL CHEMIST for large corporation, with well-equipped private laboratory, desires analytical and consulting work for organization that does not maintain resident chemist. Address No. 6932, care of Manufacturers Record, Baltimore, Md.

INDUSTRIAL SURVEYS

ENGINEERING REPORTS on resources of cities and towns. Recommendations for industrial development made by specialists in locating industries.

TECHNICAL SERVICE COMPANY
Woolworth Building New York City

INDUSTRIES WANTED

DO YOU WANT TO LOCATE in a live city—1200 population? Five thousand unemployed women within a fifteen-minute distance. Cheap power. Good roads. Will invest and give you a site. CHAMBER OF COMMERCE, Ball Ground, Ga.

INDUSTRIAL PLANTS

ICE PLANT
20 tons capacity, practically new, in Virginia town close to new National Park, offered for sale at low price by owners. B. E. Wheeler & Co., Charlottesville, Va.

FOR SALE—Going manufacturing plant. Extract now, but suitable for other lines. 23 acres land, fireproof buildings, first-class railroad facilities. If interested address A. B. COVER, Elkton, Va.

WRITE FANTUS for factories anywhere. Wonderful values in buildings or equipped plants. Valuable industrial sites free of cost to established industries. For America's best buys, address Fantus Factory Locating Service, 139 North Clark Street, Chicago.

FOR SALE—Manufacturing Plant in South Georgia, completely equipped power, etc., 15 buildings, 45 acres land. A desirable plant that can be used for most any line. A real bargain. Details and price upon request. DALE S. JOHNSON, 10 S. La Salle St., Chicago, Ill.

FACTORY SITES

FACTORY SITES and acreage in Piedmont Section. Mill locations. HUGHES T. REYNOLDS, 304 First National Bank Building, Rome, Georgia.

FREE FACTORY SITE IN SOUTHERN CITY

An ideal factory site adjacent to railroad in Waycross, Georgia, will be given free to an old-established manufacturing enterprise which wishes a splendid location in fine distributing center for trade in Southeastern United States and Central and South American markets. No promotion purposes will be considered. Address J. S. B. MOYER, Room 210 Masonic Temple, Jacksonville, Florida.

PATENT ATTORNEYS

FREE "PATENT PARTICULARS" Sterling Buck, over 21 years Registered Patent Attorney. Prompt and thorough services. Suite M, 629 F, Washington, D. C.

PATENTS—Booklet free. Highest references. Best results. Promptness assured. WATSON E. COLEMAN, Patent Lawyer, 724 Ninth St., N. W., Washington, D. C.

PATENTS—TRADEMARKS—COPYRIGHTS Charlotte office convenient to South. PAUL B. EATON, Registered Patent Attorney, 406 Independence Building, Charlotte, N. C., and 903 Grant Place N. W., Washington, D. C.

EUROPEAN REPRESENTATION

EUROPE—Highly accredited business man, visiting Europe September, will represent American interests in Commercial, Financial or Legal matters on a small fee or commission basis. Address No. 6943, care of Manufacturers Record, Baltimore, Md.

SALES REPRESENTATIVES WANTED

REPRESENTATIVES to call on architects. New interior metal trim now the most economical on the market. Exceptional proposition. Few exclusive territories to parties who can show a good record. Construction experience preferred. P. O. Box 194, Chicago, Ill.

AGENCIES WANTED

SALES ORGANIZATION wants to represent manufacturers of building and construction specialties supplies for Southeast. Address P. O. Box 366, Birmingham, Ala.

SITUATIONS WANTED

BUILDING CONST. SUPT., experienced all classes building construction; can handle any size job; best references. Available now. No. 6942, care Manufacturers Record.

EFFICIENCY and Economy steam-power plant engineer, with world of experience in paper, rubber and steel mills and modern central station plants, desires position; go anywhere. Waldo Weaver, Franklin, Ohio.

GRADUATE CIVIL ENGINEER desires connection in South with future. Young and not afraid of work. Experienced in construction work with contractor, also estimating, designing and traveling engineer. No. 6950, care Manufacturers Record.

CONTRACTOR'S SUPERINTENDENT or Engineer, age 38, married, experience 15 years, railroad engineering, land surveying, municipal engineering. Two years contractor's superintendent, paving, sewers, water works, reinforced concrete. Available Sept. 1. Location South; salary open; references furnished. Address No. 6949, care of Manufacturers Record, Baltimore, Md.

MAINTENANCE Superintendent or Engineer; six years' experience state highways, bridges and motor equipment, field office and shop. Fifteen years general construction and maintenance. Practical civil engineer and draftsman. Can plan, organize and direct motor fleet, owners, central equipment repair shop. Executive, with owners' interests always first. Age 37; married. Location preferred, Southern or Coastal States, not necessarily binding; salary open. Permanent connection desired. Address Box 406, Napoleonville, La.

MEN WANTED

WOODWORKING MACHINERY SALESMAN—Have opening in Central South for experienced and successful general Woodworking Machinery Salesman; also openings in other territories. State age, qualifications, and experience. No. 6947, care of Manufacturers Record, Baltimore, Md.

WANTED

Competent, experienced man for staff position manager of Industrial Department. State qualifications and salary expected. Address O. M. Phelps, General Manager, Mobile, Alabama.

MOBILE CHAMBER OF COMMERCE.

SALESMAN WANTED—Our proposition offers greater earning possibilities to the real salesman than is offered to him in most any other line. A credit and collection service with a bonded recovery obligation. American Security Credit Company, General Offices, St. Louis, Mo.

IF YOU ARE OPEN to overtures for new connection and qualified for a salary between \$2500 and \$25,000, your response to this announcement is invited. The undersigned provides a thoroughly organized service, of recognized standards and reputation, through which preliminaries are negotiated confidentially for positions of the caliber indicated. The procedure is individualized to each client's personal requirements; your identity covered and present position protected. Established seventeen years. Send only name and address for details.

R. W. BIXBY, INC.,
103 Downtown Bldg., Buffalo, New York.

CONTRACT WORK WANTED

PLATE WORKING MACHINERY—a complete line. General and Special Machinery. Castings: Grey Iron and Semi-Steel, any size up to 40,000 lbs. Brass, Bronze and Aluminum to 10,000 lbs. COVINGTON MACHINE COMPANY, INC. Engineers Founders Machinists Covington, Va.

MACHINERY AND SUPPLIES

FOR SALE—Corliss steam engine, fully equipped, 275 H.P., 20-in. bore, 44-in. stroke. Heavy-duty type, first-class condition, sacrifice price. Sam L. Smith, Tuckertown, N. C.

ICE-MAKING AND REFRIGERATING MACHINERY—New and rebuilt. Our prices on new Waynesboro Refrigerating Equipment and Household Electric Refrigerators very low. Buy direct from the manufacturers. All sizes. Get our prices on your requirements. GEISER MANUFACTURING COMPANY, "Department E," Waynesboro, Pa.

FOR SALE—The following good used machinery:

- 1 Dauber Bell motorized double-bevel saw.
- 1 Smith single end tenoner.
- 1 Fay & Egan double spindle shaper.
- 1 Beach Jigsaw.
- 1 Fay & Egan wood frame rip saw.
- 1 Heavy swing cut-off saw.
- 1 Automatic back-knife lathe.
- 1 C T box board matcher.
- 1 Fay & Egan belt sander.
- 1 Spindle carver.
- 1 Fay & Egan band rip and resaw.
- 1 8-ft. squaring shear.
- 1 8-ft. Cornice brake.
- 6 Singer sewing machines, belt operated from countershaft.

BERGEN & PECK,

204 Mendel Building, Savannah, Ga.

MACHINERY AND SUPPLIES WANTED

WANTED.

20 V-Type Side Dump Cars, 2 yards capacity, 36-inch Gauge, heavy construction, for shovel loading.

2 6 to 8 ton Gasoline Locomotives, 36-inch Gauge.

Equipment must be in A-1 condition.

Address

OWL CREEK PHOSPHATE COMPANY,

Carbur, Fla.

SALES ORGANIZATION whose staff has had ten to twenty years selling experience, including a graduate engineer with 15 years experience in the construction field, wishes to add one or two responsible building material accounts. Especially interested in representing a large low cost producer of natural limestone or similar stone for decorative building trim. Territory the two Carolinas.

Address A-452

Care of Manufacturers Record Baltimore, Md.

Contractors and Manufacturers
TIME CHECKS



We Make Them Promptly. Headquarters for Seals, Stock Certificates, Stencils, Steel Dies, Brass Signs, Enamel Plates, Memorial Plates, Church Seals and Pew Plates. Made on our Premises. Send for catalogue.
THE J. F. W. DORMAN COMPANY
BALTIMORE, MD.

An experienced organization

We offer you the services of a thoroughly grounded organization well equipped to dispose of

Used Textile Machinery
Mill Property
Vacant Plants
Mill Sites
Mill Liquidations
Appraisals

This specialized service of men experienced in handling large and small transactions in an orderly and conscientious manner is yours for the asking. Write

H. M. McCORD

505 Fifth Ave.
NEW YORK CITY

Telephone
MURray Hill 4755

161 Devonshire St.
BOSTON, MASS.

Telephone
Liberty 5948

OPPORTUNITIES

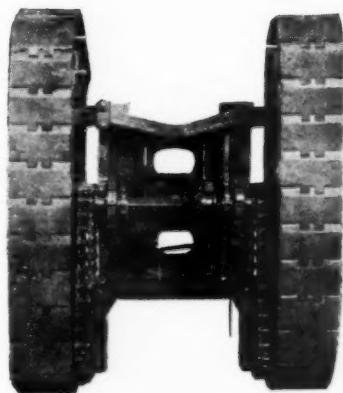
Industrial and Agricultural

The A. & W. P.—W. Ry. of Alabama and Georgia Railroads traverse a territory rich in material and potential resources. Attractive industrial sites. For information apply:

Commercial and Agricultural
Dev. Dept.—Above Lines
Atlanta, Georgia



Gives You Full Dipper Loads — And More of Them



The CONQUEROR Truck

ALL castings are solid, one-piece, special quality steel, carefully heat treated. Truck frame has only one set of bevel gears. These transmit power to a one-piece cross travel shaft of solid billet steel, hammered out with round and squared sections. Cross shaft bearings are cast integral with truck frame casting. Bearings are bronze bushed and interchangeable. Double roller chain drive. Steering controlled from cab without chains or swinging body.

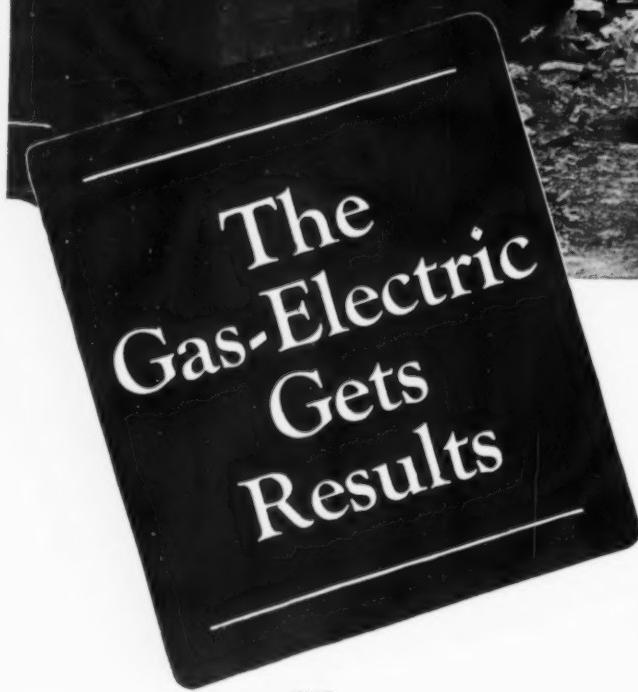
FILLING the dipper within its length is easy with the full-powered, positive, CONQUEROR crowd. The dipper teeth dig without let-up, in the hardest materials, regardless of the position of the dipper handle. Manipulation by the operator is unnecessary; yet he has instant control—of digging, hoisting, swinging, traveling, steering.

Any CONQUEROR user will tell you that this power and easy control, *plus* simple and sturdy construction, combine to give not only full dipper loads, but *more* of them.

SHOVELS, DRAGLINES
BACK HOES

THE OSGOOD Co.
MARION, OHIO, U.S.A.

CLAMSHELLS, CRANES
PILE DRIVERS



The Type 7 Gas-Electric is daily demonstrating its ability to produce high yardages under difficult operating conditions

THE successful operation of a gasoline shovel depends on its ability to produce high yardages, under severe conditions, at low operating costs. This the Type 7 Gas-Electric does in a most satisfactory manner.

It is the only gasoline shovel with independent drives for the hoist, swing and crowd and is the only gasoline shovel having steam engine characteristics on ALL motions.

Use the Gas-Electric and secure the flexibility of the time proved steam shovel and the convenience and economy of gasoline as a fuel.

THE MARION STEAM SHOVEL CO.
MARION, OHIO, U. S. A.

MARION

Gasoline
for fuel Electricity
 for power

